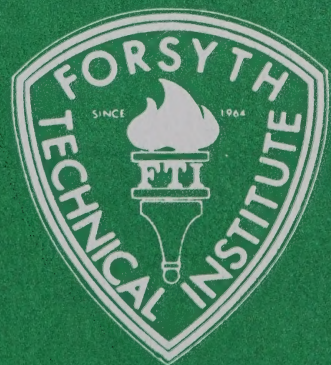


# **FORSYTH TECHNICAL INSTITUTE**

1979-1981



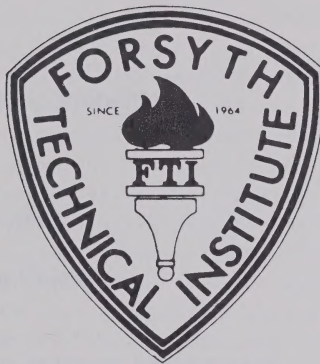




# **Forsyth Technical Institute**

## **General Catalogue**

**1979-1981**



**2100 Silas Creek Parkway**

**Winston-Salem, North Carolina 27103**

**Telephone: (919) 723-0371**

# Forsyth Technical Institute

## General Catalog

1978-1981



Visitors to the Institute are welcome.  
The Institute's offices are open from  
eight a.m. until ten p.m., Monday  
through Thursday, and from eight  
a.m. until five p.m. on Friday.

2500 Siler Creek Parkway

Winston-Salem, North Carolina 27103

Telephone: (919) 751-0373



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# **FORSYTH TECHNICAL INSTITUTE**

## **Academic Calendar**

**1979-1980**

### **FALL QUARTER — August 27, 1979 - November 21, 1979**

August 27	Orientation for Faculty (FWD)
August 28 & 29	Registration and Orientation for Students (FWD'S)
August 30	First Day of Classes
September 3	Labor Day Holiday (1)*
September 4	Classes Resume
September 5	Last Day to Add/Drop Classes
November 15	Last Day of Classes
November 16	Grade Posting (FWD)
November 19-21	(FWD'S)

### **WINTER QUARTER — November 22, 1979 - February 22, 1980**

November 22 & 23	Thanksgiving Holidays (2)*
November 26 & 27	Registration (FWD'S)
November 28	First Day of Classes
December 3	Last Day to Add/Drop Classes
December 21	Christmas Holidays to Begin at Close of School Day
December 24-26	Holidays (3)*
December 27-28	(Staff and Faculty Work Days)
December 31 & January 1	Holidays (2)*
January 2	Classes Resume
February 21	Last Day of Classes
February 22	Grade Posting (FWD)

### **SPRING QUARTER — February 25, 1980 - May 23, 1980**

February 25 & 26	Registration (FWD'S)
February 27	First Day of Classes
March 3	Last Day to Add/Drop Classes
April 3	Easter Holidays (students) Begin at Close of School Day
April 4	(FWD)
April 7	Easter Monday Holiday (1)*
April 8	Classes Resume
May 15	Last Day of Classes
May 16	Grade Posting (FWD)
May 18	Graduation
May 19-23	(5 days - available for annual leave)



**SUMMER QUARTER — May 26, 1980 - August 22, 1980**

May 26	Registration (FWD)
May 27	First Day of Classes
May 30	Last Day to Add/Drop Classes
July 4	Independence Day Holiday (1)*
July 7	Classes Resume
August 12	Last Day of Classes
August 13	Grade Posting (FWD)
August 14	(FWD)
August 15	Graduation (FWD)
August 18-22	(5 days - available for annual leave)

**SPECIAL SUMMER SESSION (Dates To Be Announced)**

- Notes: 1) \*Indicate holidays for Faculty and Staff (10 per year). School is closed.
- 2) FWD - Faculty Work Day (8 hours) - available for annual leave with approval of supervisor.

# **FORSYTH TECHNICAL INSTITUTE**

## **Academic Calendar**

**1980-81**

### **FALL QUARTER — August 25, 1980 - November 14, 1980**

August 25	Orientation for Faculty (FWD)
August 26 & 27	Registration and Orientation for Students (FWD'S)
August 28	First Day of Classes
September 1	Labor Day Holiday (1)*
September 2	Classes Resume
September 3	Last Day to Add/Drop Classes
November 13	Last Day of Classes
November 14	Grade Posting (FWD)

### **WINTER QUARTER — November 17, 1980 - February 20, 1981**

November 17 & 18	Registration (FWD'S)
November 19	First Day of Classes
November 24	Last Day to Add/Drop Classes
November 27 & 28	Thanksgiving Holidays (2)*
December 23	Christmas Holidays to Begin at Close of School Day
December 24-26	Holidays (3)*
December 29-30	(Staff and Faculty Work Days)
December 31 & January 1	Holidays (2)*
January 2	(FWD)
January 5	Classes Resume
February 17	Last Day of Classes
February 18	Grade Posting (FWD)
February 19 & 20	(FWD'S)

### **SPRING QUARTER — February 23, 1981 - May 15, 1981**

February 23 & 24	Registration (FWD'S)
February 25	First Day of Classes
February 27	Last Day to Add/Drop Classes
April 17	Easter Holidays to Begin at Close of School Day
April 20	Easter Monday Holiday (1)*
April 21	Classes Resume
May 12	Last Day of Classes
May 13	Grade Posting (FWD)
May 14	(FWD)
May 15	Graduation (FWD)

**SUMMER QUARTER — May 18, 1981 - August 21, 1981**

May 18 & 19	Registration (FWD)
May 20	First Day of Classes
May 25	Last Day to Add/Drop Classes
July 3	Independence Day Holiday (1)*
July 6	Classes Resume
August 5	Last Day of Classes
August 6	Grade Posting (FWD)
August 7	Graduation (FWD)
August 10-21	(10 days - available for annual leave)

**SPECIAL SUMMER SESSION (Dates To Be Announced)**

- Notes: 1) \*Indicate holidays for Faculty and Staff (10 per year). School is closed.
- 2) FWD - Faculty Work Day (8 hours) - available for annual leave with approval of supervisor.



# GENERAL INFORMATION



## HISTORY AND PURPOSE

Forsyth Technical Institute can trace its beginning to early adult and high school vocational courses which were available in Winston-Salem. In 1958, a Chamber of Commerce Study Committee recommended that an Industrial Education Center be built to provide the trade and technical training needed by local industry. A bond issue provided the money to start construction of two buildings late in 1959, and the first adult classes were begun in October of 1960. In 1963, a third building was constructed, and new technical programs were added. That same year the North Carolina Legislature passed the Community College Act, creating a statewide system of Community Colleges, Technical Institutes, and Industrial Education Centers. In January, 1964, the name of the school was changed to Forsyth Technical Institute. The operation of the school was transferred from the Winston-Salem/Forsyth County Schools to a local Board of Trustees who govern the Institute following policies established by the State Board of Education and the State Department of Community Colleges.

The purpose of Forsyth Technical Institute is to prepare people for gainful employment and effective community membership. The major objective of the curriculum programs is to develop within the student a vocational or technical proficiency to meet the expanding advances in industry, business, and health occupations. The Institute is also dedicated to the concept of continuing education through the Adult Continuing Education Program directed toward self improvement in cultural, avocational, and vocational pursuits.

The course of study at Forsyth Technical Institute seeks to attain the stated purpose of the institution by:

- (1) providing effective teaching to all who enroll;
- (2) providing educational opportunities for adults who discontinued their formal training before mastering the basic skills in general education;
- (3) providing vocational training for students who are preparing to enter skilled trades;
- (4) providing technical training for those persons wishing to enter the more highly skilled occupations in business, industry, and health service;
- (5) providing technical, vocational, and enrichment courses on a part-time basis for adults now employed.

Forsyth Technical Institute is an equal opportunity educational institution operating under the Open Door Policy of the Department of Community Colleges and in compliance with the Civil Rights Act of 1964. No qualified person shall, on the grounds of sex, race, color,

creed, national origin, marital status, military status, or handicap be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity.

## **LOCAL ADVISORY COMMITTEES**

Each program of study at Forsyth Technical Institute has its own advisory committee. The committees are composed of representatives of local businesses, industries, education and community organizations.

The advisory committees provide the necessary contact between the Institute and the community in an effort to maintain current and relevant programs of instruction to meet the needs of the community.

## **LOCATION AND FACILITIES**

The Institute is located at 2100 Silas Creek Parkway in the southwest section of Winston-Salem. It is easily accessible from U.S. Highway 52, North Carolina Highway 150, and Interstate Highway 40. Seven buildings house modern laboratories, shops, and classrooms. Arrangements have also made space available at the Allied Health building of North Carolina Baptist Hospital and Forsyth Memorial Hospital for nursing and allied health programs.

Off campus Individualized Learning Centers are located at the Forsyth County Public Library on W. Fifth Street, Whitaker Care Center of Forsyth Memorial Hospital, and Paddison Memorial Library in Kernersville.

## **HOURS OF INSTRUCTION**

Day classes are scheduled between the hours of 7:00 a.m. and 5:30 p.m., Monday through Friday. Evening classes meet between the hours of 5:30 p.m. and 11:00 p.m., Monday through Friday. Some classes also meet on Saturday morning.

Students in nursing and allied health programs can expect clinical practice to be scheduled between the hours of 6:30 a.m. and 11:00 p.m., Monday through Friday.

## **ACCREDITATION**

Forsyth Technical Institute is accredited by the Southern Association of Colleges and Schools, and is approved by the North Carolina State Board of Education.

Electronics Engineering Technology, Manufacturing Engineering Technology, and Mechanical Drafting and Design Engineering Technology are accredited by the Engineers' Council for Professional Development.



The Associate Degree Nursing program and the Practical Nurse Education program are accredited by the North Carolina State Board of Nursing and the Allied Health programs are accredited by the American Medical Association.

The Institute is a member in good standing of the American Association of Community and Junior Colleges.

## **PROGRAMS OF STUDY**

### **ASSOCIATE IN APPLIED SCIENCE DEGREE**

- Architectural Technology
- Associate Degree Nursing
- Banking and Finance
- Business Administration
  - Accounting Option
- Early Childhood Specialist
- Electronic Data Processing (Business)
- Electronics Engineering Technology
- Executive Secretarial Science
- Executive Secretarial Science—Machine Transcription Option
- Industrial Management Technology
- Manufacturing Engineering Technology
- Marketing and Retailing
- Mechanical Drafting and Design Engineering Technology
- Nuclear Medicine Technology
- Ornamental Horticulture
- Police Science Technology
- Radiologic Technology
- Real Estate
- Respiratory Therapy Technology

### **DIPLOMA PROGRAMS**

- Air Conditioning, Refrigeration and Heating
- Automotive Body Repair
- Automotive Mechanics
- Building Trades Drafting
- Carpentry
- Diesel Truck Maintenance and Repair
- Electrical Installation
- Electronic Servicing
- Graphic Arts (Printing)
- Machinist
- Plumbing

Practical Nurse Education  
Welding and Metal Fabrication

## **ADULT EDUCATION**

Adult Basic Education  
Adult High School Program  
General Adult Enrichment Program  
Comprehensive Employment and Training Act Program  
New and Expanding Industry Training Programs  
Special Seminars and Workshops  
Management Development Training  
Vocational-Technical Extension Programs

## **ADMISSIONS**

### **ADMISSION REQUIREMENTS**

Forsyth Technical Institute is an Equal Opportunity Educational Institution and operates under an “open door” admissions policy. Admission to the Institute does not, however, imply immediate admission to the program desired by the applicant. Before a prospective student is admitted to a specific curriculum, aptitude and placement tests will be scheduled and counseling interviews may be arranged. This process helps the student to evaluate his potential for success in his chosen field. When an evaluation of test scores and other evidence indicates a lack of readiness to enter a specific program, the student may be approved for the Pre-Technical or Pre-Vocational Program or he may be encouraged to re-examine his educational and occupational goals.

Forsyth Technical Institute will accept credit from other technical institutes and colleges. For specific information refer to “Transfer Student.”

### **Admission to Associate Degree Programs**

High school graduation, or the equivalent, is required of all applicants for degree programs. The high school equivalency certificate or the state adult high school diploma is acceptable in lieu of a regular high school diploma.

Applicants for the associate degree programs who are not high school graduates may arrange to complete high school in the Adult Education program, or take the high school equivalency examination (G.E.D.) at the Individualized Learning Center.

Applicants for admission to the engineering technologies must present one unit in algebra and one unit in plane geometry. Electronics Engineering Technology students must present units in algebra only. Applicants to the Electronic Data Processing program must present one unit in algebra. Applicants for admission to associate degree health programs must present one unit in algebra, one unit in biology, and one unit in chemistry. High school physics is recommended for Engineering Technology and Allied Health curricula.

Applicants who do not meet course requirements may arrange to make up the deficiency by completing special classes during the summer, or in the Adult Education Program, or in the Individualized Learning Center. Deficiencies must be made up prior to admission to a curriculum.

Applicants to associate degree programs should submit scores on either the Scholastic Aptitude Test or the Comparative Guidance and Placement Test. Information concerning the Scholastic Aptitude Test may be obtained from high school counselors. Information on taking the Comparative Guidance and Placement Test is available from the Student Services Office at Forsyth Technical Institute.

Applicants to Health Technologies may be subject to approval by the Health Admissions Committee. The members of the Admissions Committee come from the instructional staff of the health curricula and the Student Services staff. The purpose of the committee is to evaluate all available data concerning each applicant. The committee is mindful that much of the clinical training involves the student working with patients in local hospitals, that their role is constantly being expanded with increasing responsibilities, and that the program must educate and train in anticipation of future demands. A majority of the committee must concur that an applicant meets minimum criteria before he or she is admitted. If the program's enrollment quota is filled before all applications are received, late applicants are informed that they may reapply for the following year.

NOTE: The North Carolina Board of Nursing may deny license to individuals convicted of a felony or any other crime involving moral turpitude.

Any female student in Radiologic Technology or Nuclear Medicine Technology who is or becomes pregnant during the clinical portion of the training must notify the Department Dean and Chairman and will be advised of the possible harmful effects exposure to radiation may have on the developing fetus.



## Admission to Diploma Programs

Applicants for one-year vocational programs must be high school graduates or meet North Carolina equivalency certificate (GED) standards. For non-high school graduates with special needs, however, exceptions may be made under certain circumstances in all vocational programs except *Practical Nurse Education*. Applicants who are not high school graduates may arrange to complete high school in the Adult Education program or take the high school equivalency examination (GED) at the Individualized Learning Center. Generally, applicants are admitted into most vocational programs on the basis of high school records. However, scores on the SAT or the CGP may be required. Questions concerning the need for testing should be addressed to the Admissions Office.

Because of the specialized nature of the vocational programs, one unit of high school algebra is recommended for Air Conditioning, Building Trades Drafting, Electrical Installation, Electronic Servicing, Machinist, and Practical Nurse Education. High school geometry is also recommended for Building Trades Drafting and Machinist; biology is also recommended before entering Practical Nurse Education.

Admission to the Practical Nurse Education program may also be subject to approval by the Health Admissions Committee.\*

## Admission to Continuing Education and Extension Programs

Persons to be enrolled must be eighteen years of age or older. Further information concerning admissions and registration procedures may be obtained from the office of the Dean of Continuing Education.

### ADMISSIONS PROCEDURES

Applicants for admission to any degree or diploma program should:

1. Obtain an application form from the Office of Student Services or from a high school counselor.
2. Submit the properly completed application to the Office of Student Services.
3. Arrange to take the Comparative Guidance and Placement Test devised by the Educational Testing Service. Scores should be sent to the Office of Student Services. Scholastic Aptitude Test (SAT) scores may be substituted for the Comparative Guidance and Placement Test.

\*See Admission to Associate Degree Programs with reference to health programs.

4. Request that a transcript of all high school and post high school academic work be sent directly to the Office of Student Services.
5. Submit recommendations if requested.
6. Report for a personal interview, if requested, on the date scheduled by the Office of Student Services. At this interview test scores and previous academic records will be evaluated and the applicant will be advised as to eligibility for admission to the desired program. If a personal interview is not required, the student will be notified of his status in writing.
7. Take required placement tests as scheduled by the Office of Student Services.
8. Submit a properly completed health appraisal form when requested.

## **REGISTRATION**

The Institute operates on the quarter system. Each quarter is eleven weeks in length and students who are pursuing diploma or degree programs must register at the beginning of each quarter. All students are expected to register during the time set aside for that purpose. Registration dates are listed in the calendar for the academic year.

Tuition and fees must be paid on the day of registration.

### **LATE REGISTRATION AND SCHEDULE CHANGES**

All registration for a class is closed after the fourth class day. A student may register late through the fourth class meeting date providing:

1. That the class is not cancelled or closed.
2. That the student has the consent of his advisor and the Office of Student Services and has met admissions and prerequisite requirements.
3. That the student pay a \$5.00 late registration fee in full at the time of late registration unless he registers late at the request of the Institute.

All class schedule changes must be approved by the student's advisor and notification of such changes submitted to the Records Office.

### **PRE-REGISTRATION**

The pre-registration period for continuing students is held during the latter part of each quarter. During this period, each continuing student is expected to meet with his advisor to determine his schedule

of courses for the upcoming quarter. Any questions arising during this pre-registration period concerning transfer credit for course(s) should be directed to the Records Office.

**ORIENTATION**

All new full-time students are expected to participate in an orientation program conducted by members of the faculty, staff or student government. Part-time students are urged to participate also. The purpose of orientation is to acquaint the student with the administrative personnel, faculty, and student leaders. The regulations, policies and privileges of the Institute as set forth in the catalogue are discussed and interpreted.

**ACADEMIC INFORMATION**

**GRADUATION REQUIREMENTS**

Graduation requirements for the degree or diploma will vary according to curriculum. The student should refer to the specific section of the catalogue which applies to his program so that he may be certain of the course requirements for graduation. All students must earn a cumulative grade point average of 2.0, and must have received a passing grade in all required subjects, in order to be eligible for graduation.

Grade Point Average (G.P.A.) is obtained by dividing the total quality points earned by the total number of credit hours work attempted.

**COURSE NUMBERING SYSTEM**

Courses are numbered in accordance with the system approved by the North Carolina Department of Community Colleges.

- 1. Each course is designated by a three-letter prefix indicating the general subject area.
- 2. A number indicating a specific course within an area follows the letter prefix according to the following rules:

a. Pre-Technical courses	0- 99
b. Technical courses	100- 299
c. Vocational courses	1000-1099
d. Adult education courses beyond high school	2000-3099

## Sample Course Listing

			C	L	P	QH
DFT	1121	Drafting I	4	0	12	8
↑	↑	↑	↑	↑	↑	↑
Course Prefix	Course Number	Course Title	Classroom Hours per week	Laboratory Hours per week	Practicum (Practical Application) per week	Quarter Hours Credit
			↑   ↑   ↑   ↑			
			Contact Hours per week			

## GRADING SYSTEM

The following grading system is used by Forsyth Technical Institute:

No. Grade	Letter Equivalent	Description	Quality Points Per Quarter Hour
94-100	A	Excellent	4
86-93	B	Good	3
78-85	C	Fair	2
70-77	D	Passing	1
Below 70	F	Failing	0
Official Withdrawal	W		
Withdrawn Passing	W-P		
Withdrawn Failing	W-F		
Incomplete	Inc.		
Audit	Y		

The letter equivalent system is used for recording and reporting grades.

### *W — Official Withdrawal*

An Official Withdrawal is the grade given to a student who voluntarily withdraws from a course after the drop/add period through the tenth class day of a quarter and has notified the instructor and the Registrar, in person, or in writing of his decision.

### *W-P — Withdrawn Passing*

Withdrawn Passing is the grade given to a student who voluntarily withdraws from a course after the tenth class day of a quarter with a passing grade, and has notified the instructor and the Registrar in person or in writing, of his decision.



### *W-F — Withdrawn Failing*

Withdrawn Failing is the grade given a student who at any time after the fourth class day withdraws from a course without first notifying the instructor and the Registrar, in person or in writing, of his decision. Students who withdraw after the tenth class day and are failing at the time of withdrawal receive a grade of W-F.

### *INC. — Incomplete*

The grade of Incomplete is given only if a student has a valid reason for failure to complete the work on schedule. Illness, absence on company business, or other circumstances beyond the student's control are considered valid reasons for non-completion of work. The student must have advised his instructor of the circumstances prior to the end of the quarter and have been granted an Incomplete grade. The instructor must have specified the work to be made up in order to remove the incomplete and a date by which the work must be completed. If the conditions necessary to remove the Incomplete will require additional hours of instruction, the student must re-register for the course. If, on the other hand, the student needs only to complete work without instructional supervision, this must be completed no later than the following quarter or the course must be repeated.

Any student who receives an Incomplete on a course that is a prerequisite for another course must make up the incomplete work by the end of the drop/add period if he is registered for the next succeeding course. Should the student fail to remove the Incomplete by the end of the drop/add period, he must drop the course which is dependent on the prerequisite.

### *Y — Audit*

Any audit of courses must have prior approval of the Office of Student Services and the department involved.

Students auditing courses are not required to take examinations or hand in written work, but may do so if they wish. No grade or credit toward a degree or diploma is given. Audit may not be changed to credit, or credit to audit after the last day of drop/add.

## **HONORS AND HIGH HONORS LISTS**

Soon after the end of each quarter, in order to honor students who have earned outstanding scholastic records, the Institute identifies those students for the Honors and High Honors lists. In order to be named to the Honors List, a student must take a minimum of 12 quarter hours of credit work and earn at least a 3.000 average, but less

than a 3.500 average. In order to be named to the High Honors List, a student must take a minimum of 12 quarter hours of credit work and earn at least a 3.500 average.

## **WITHDRAWALS**

A student who must withdraw from school, either permanently or temporarily, before graduation should make an official withdrawal. He should notify the Records Office and a member of the counseling staff, either by telephone or in person, and should complete the withdrawal information sheet. This information is necessary to assure that the student's status at the time of withdrawal is clearly identified in order to expedite re-entry, transfer of credit to another institution, or to provide potential employers with accurate educational information.

## **ACADEMIC STANDING**

To be in good academic standing, a beginning student must have earned a grade point average of 2.0 by the end of the first quarter, and a cumulative grade point average (G.P.A.) of 2.0 must be maintained thereafter.

A student failing to attain the required grade point average in any quarter will be placed on academic probation for the following quarter.

A student on academic probation whose work has improved to the point where he meets the required cumulative grade point average will automatically be removed from probation.

A student who has been placed on academic probation and who does not earn the required grade point average in the next quarter will be required to register for a reduced load, or he may be required to withdraw from the program and be directed to a more suitable curriculum.

A departmental Academic Review Committee shall make decisions on individual cases. Each student enrolled in the Institute is expected at all times to be aware of his academic status and to be responsible for knowing he has failed to meet the requirements as outlined above for continuing in school. Instructors, faculty advisors and counselors in the Office of Student Services are available for conferences, but it is the responsibility of the student to seek extra help if it is needed.

At the end of each quarter, each departmental Academic Review Committee meets to review students' academic standing. If a student's standing is changed in any way, other than removal from probation, the student will be notified in writing by the respective department dean.

## **ACADEMIC APPEAL**

If a student planning to register for the next quarter wishes to appeal the decision of the departmental Academic Review Committee, he or she must make the appeal in writing to the appropriate department dean within twenty-four (24) hours.

The department dean will reconvene the departmental Academic Review Committee and hear the appeal and will notify in writing the results to the student, the Vice-President for Instruction, and the Vice-President for Student Services.

If satisfaction is not achieved with the appeal to the departmental Academic Review Committee, the student may appeal in writing to the chairman of the Campus Academic Review Committee within twenty-four (24) hours of receipt of the decision. The Campus Academic Review Committee will investigate the case, hearing both sides, and will notify the student in writing of the results of the appeal.

If the student is not satisfied with the decision rendered by the Campus Academic Review Committee, the student may appeal in writing to the President within twenty-four (24) hours of receipt of the decision. The President will review the written record of the case and notify the student in writing of the results of the appeal. The decision of the President will be final.

## **COURSE REPEAT RULE**

The last grade earned on a repeated course, whether F or higher, will be the grade computed for grade point average.

If a student fails any course in his trade or technical curriculum, it will be necessary for him to repeat that course until a passing grade is obtained in order to receive the State Vocational Diploma or the Associate of Applied Science degree. The student is responsible for scheduling make-up courses required for graduation.

If a student fails one of the courses in his major subject area, he may be referred to the Office of Student Services for counseling.

## **FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974**

The Family Educational Rights and Privacy Act of 1974 provides many safeguards regarding the confidentiality of and access to student records.

1. Students may review their educational records by a request in writing to the Registrar.
2. Student records will not be reviewed by 'third parties' unless permission is obtained in writing from the student. Exceptions may be made for teachers and administrators if the information is



for educational purposes. Exceptions may also be made for parents who claim the students as dependents. The Vice-President of Student Services will make the final decision concerning access to records.

3. Official transcripts will be issued only when a written request is received from the student.

### **ADVISOR/ADVISEE PROGRAM**

Because problems of communication often tend to impersonalize student-faculty relationships, Forsyth Technical Institute has an Advisor-Advisee program which is designed to provide a more personal atmosphere for the student and to increase communications between students and faculty. Each student at Forsyth Technical Institute is assigned an advisor from his own curriculum. Through periodic conferences between the student and advisor, it is hoped that the student will be better able to choose his academic program from quarter to quarter and that potential problems can be solved.

Each advisor will have posted regular office hours in order for the student to arrange conferences to discuss or explore any problem or condition which is of importance to him. The advisor will assist the student during pre-registration, registration, and in course selection.

Each student is assured that all discussions are confidential and that when necessary, he may be referred to other guidance resources to help with his particular concern.

### **ATTENDANCE**

1. Class attendance is calculated from the first officially scheduled class meeting through the last scheduled class meeting which includes the drop/add period.
2. Students will be informed in writing at the beginning of the quarter when an instructor requires special attendance rules for the course.
3. A student must satisfy his instructor that he should be permitted to remain in a course and attend (classes) after he incurs any absence in excess of the following:
  - a. Three (3) regular one hour class sessions.
  - b. Two (2) shop (practicum) or laboratory sessions which meet for two or more hours.
  - c. Two (2) regular one hour class sessions, and one (1) shop (practicum) or laboratory session which meets for two or more hours.

4. When a student is absent from a class and a laboratory or (practicum) shop session which meet consecutively, each session missed will be counted as an absence.
5. Students have full responsibility for accounting to their instructors for absences.
6. Students are expected to report for class, lab, shop, and practicum on time. Habitual tardiness may, at the discretion of the instructor, be considered in computing class attendance.
7. Students are expected to attend all class, laboratory, shop, and practicum sessions. No passing grade will be issued for a course if, for whatever reason, a student has been absent for 25% of the total possible class time per course per quarter.

## **COURSE LOAD**

The suggested contact hours per quarter shown for each curriculum are minimal. It is the policy of the Institute to permit students to enroll in additional subjects and laboratory work beyond those shown in the catalogue, providing space is available and prerequisites have been met.

## **TRANSFER OF EARNED CREDIT BETWEEN PROGRAMS**

Credits earned in any degree program may be credited toward a degree or diploma program upon evaluation by the Office of Student Services. Credits earned in a diploma program are not acceptable for transfer to an associate degree program but may be credited toward a second diploma major.

## **TRANSFER STUDENTS**

Applicants who have attended other institutions of higher learning may transfer credit earned in comparable courses or programs of study if the student is transferring from a regionally accredited institution, or from another institution in The North Carolina Community College System. No grade lower than C may be transferred. A student requesting credit for work completed in any other type of training program or institution may be given provisional transfer credit if the other institution is recognized by the Council on Post Secondary Accreditation (COPA). Advanced standing may be given on the basis of a proficiency examination. All transcripts for transfer work should be submitted at least one week prior to enrollment. Final decision on transfer credits will be determined by the Institute.

Students requesting credit for training completed in Armed Services Schools should submit official records of service schools

completed. Credit may be granted for training comparable to course work offered in the student's curriculum. The amount of credit granted is subject to approval by the dean of the department and Director of Admissions and will not exceed the recommendations in the *Guide to Evaluation of Educational Experiences in the Armed Services* published by the American Council on Education.

## **STUDENT CLASSIFICATION**

- Full-time: A student who is enrolled in 12 or more quarter hours of course work.
- Part-time: A student who is enrolled for less than 12 quarter hours of work.
- Special: A student who is enrolled in credit courses but who is not working toward a degree or diploma. A special student must meet the regular admissions criteria. Permission to register as a special student is granted at the discretion of the Office of Student Services and the instructor.
- Audit: A student who is enrolled in regular course work but who is not receiving credit for work undertaken.
- Freshman: Any student who has earned less than 45 credit hours.
- Sophomore: Any student who has earned 45 credit hours or more.

## **GRADE REPORTS AND TRANSCRIPTS**

Shortly after the end of each quarter, student grade reports are available to students in the Records Office.

Transcripts of the student's record cannot be sent to other schools, prospective employers, or to the student himself, unless an official request is made in writing by the student to the Records Office.

Grade reports and transcripts are withheld until all student obligations to the Institute have been met.

## **STUDENT CONDUCT AND RESPONSIBILITIES**

### **DISMISSAL AND SUSPENSION**

The following regulations govern dismissal from class, or from the Institute for students of Forsyth Technical Institute.

Any instructor may request a student to leave his class, lab, shop, or clinical area when, in the opinion of the instructor, the student's conduct or personal habits disrupt normal classroom procedure. The



instructor will immediately notify, in writing, his Department Dean and the Student Services Office of his actions, identifying the student and the cause for dismissal from class.

The burden of requesting re-entry to the class, lab, shop, or clinical area shall rest with the student involved. Request for re-entry must be made to the instructor prior to the next scheduled meeting of the affected class. If the instructor feels that additional counseling is needed for this particular student, the instructor shall have the prerogative of asking the student to meet with the Department Dean or the counseling staff prior to his being readmitted to the instructor's class.

If, in the opinion of the instructor and the Department Dean, the conduct of the student or his personal habits are such that he should be permanently dismissed from the class or from the Institute, a written report initiated by the instructor and approved by the Department Dean must be sent to the Executive Vice President for Instruction within 24 hours. The Department Dean will inform the student in writing of his dismissal. If the student wishes to appeal this decision he must do so in writing to the Executive Vice President for Instruction within 24 hours of receipt of the decision. The Disciplinary Review Committee will then be called into session to hear the case and make appropriate recommendations to the President. The President's decision will be final with the right of appeal always available to the party involved.

Specific information on dismissal or suspension from the institute may be found in the current edition of the Student Handbook.

## **STUDENT DRESS CODE**

Forsyth Technical Institute continually has prospective employers and other visitors on campus. Also many companies seeking to relocate or open new industries will have representatives visit this campus.

With this in mind, while Forsyth Technical Institute students dress informally, cleanliness and neatness of appearance are strongly encouraged. Each instructor has the right to ask a student to leave his class or shop if the student's personal appearance or attire is objectionable to the other students, or if this attire can be construed to be a hazard to safe operations.

## **PARKING REGULATIONS**

Visitors are welcome on the campus of Forsyth Technical Institute. Designated visitor parking areas will be indicated by campus signs.

Any visitor receiving a ticket should return it to the person or office visited.

Students planning to park on campus are required to purchase a parking decal at the time of registration. Specific rules and regulations governing parking will be issued upon vehicle registration and may also be found in the current issue of the Student Handbook.

## **USE OF FACILITIES**

The buildings and their contents exist solely for the education of our adult population. The use of the facilities for any other purpose is strictly prohibited. Any use of these facilities for personal gain will result in immediately disciplinary action.

Smoking is prohibited in all classrooms, laboratories, and shops.

Animals are prohibited inside the buildings. Any animals on the campus grounds must be on a leash in compliance with the City of Winston-Salem Leash Law Ordinance Sec. 3-18.

Children are not allowed in classrooms or shop areas during class sessions. It is further prohibited for children to be left unattended in library or canteen areas, or on campus grounds.

## **GRADUATION**

### **GRADUATION REQUIREMENTS**

A student wishing to receive a degree or a diploma from this institution must fulfill all course requirements.

A student who has earned a cumulative grade point average of 3.5 is eligible to be graduated with high honors.

A student who has earned a cumulative grade point average of 3.0 is eligible to be graduated with honors.

A student who has earned a cumulative grade point average of 2.0 is eligible for graduation.

Course requirements vary according to program. The student should refer to the catalogue for course requirements for graduation from his program of study and should be aware at all times of his progress toward graduation.

It is the further responsibility of the student to complete an official INTENT TO GRADUATE form at least six weeks prior to his last registration. These forms may be obtained from the faculty advisor who will assist the student in completing the form, and will submit the form to the Records Office.

**COMMENCEMENT EXERCISES**

Commencement exercises are held at the end of spring and summer quarters on the date published in the academic calendar. Degrees and diplomas are awarded at this time. Students are expected to notify the Records Office as to their intention to participate in the exercises.

**COMMENCEMENT MARSHALS**

The rising sophomores who have maintained the highest scholastic averages during their freshman year are honored by being chosen commencement marshals. The two marshals who have the highest academic averages are named chief marshals.

**SCHOOL RINGS AND PINS**

Any student in good standing who has completed at least one-half of the credit hours required for graduation in his curriculum may order the official school ring. The student is required to pay a \$20.00 deposit at the time ring is ordered, with the balance due upon delivery.

Pins for the health programs are also available. Orders for both pins and rings may be placed through the Institute Bookstore.

**TUITION AND FEES**

**TUITION**

Since the Institute receives funds from local, state and federal sources, tuition charges are very low. The charges are set by the State Board of Education and are subject to change without notice.

Tuition:

12 quarter hours or more	\$39.00 per quarter
Less than 12 quarter hours	\$3.25 per quarter hour
Late registration fee	\$5.00

Tuition charges for non-credit classes in the Extension Program depend upon the nature of the class. No tuition is charged for Adult Basic Education courses. Normal tuition rates will apply if courses are taken in the I.L.C. for curriculum credit. No tuition is charged for individuals age 65 and over. Instructional materials fees are set to meet instructional needs in certain types of classes.

Summer School and Audit Fees are charged at the same rate as those charged during regular term.

A student who is not a legal resident of North Carolina must pay non-resident tuition. A person is not deemed eligible for the resident rate of tuition unless he has established and maintained his legal residence in North Carolina for at least twelve months with the intent to live in North Carolina prior to enrollment. Currently, out-of-state tuition is \$16.50 per quarter hour or \$198.00 per quarter for a full-time student.

Students who are in doubt as to their status as a resident should request clarification by consulting the Office of Student Services before registration. Students may appeal their residence for tuition status to the Vice President for Student Services.

### **STUDENT ACTIVITY FEE**

It is the policy of this institution that a student activity fee be charged. This normally will be from \$3.00 to \$7.00 per school quarter.

The use of such a student fee is at the discretion of the Board of Trustees upon recommendation of the President. In general, these fees are used for student-centered activities and for the general benefit of the student body. Student activity fees are not refundable for any reason.

### **BOOKS AND SUPPLIES**

Textbooks and supplies are not furnished by the Institute, but are the responsibility of the student and may be purchased at the Institute Bookstore. The cost of books and supplies varies from program to program, and from quarter to quarter.

### **UNIFORMS**

Uniforms and other special wearing apparel shall be paid for by the students.

The initial cost of uniforms and special equipment for female students in the various health education programs ranges from \$40 to \$150 depending upon the program.

The cost of uniforms is estimated and subject to change. Students should inquire for details during admission interviews.

### **TUITION REFUNDS/HOLDS**

Tuition is not refundable. Exception will be considered where the cause of withdrawal is completely beyond the student's control, such as serious illnesses. In such cases, two-thirds of the tuition paid may be refunded only if the student withdraws and submits a request within ten calendar days after the first day of classes, as published in the



academic calendar. If a student withdraws from a course, or courses, but remains enrolled in the Institute, he will receive no refund for the course\*dropped. Refunds of five dollars or less will not be made except for classes cancelled by the Institute.

A student who withdraws from all courses and submits a request within ten calendar days after the first day of class may request that his tuition be held. A request for tuition hold will be considered when the cause of withdrawal is completely beyond the student's control and the student does not remain enrolled in the Institute. If the request is granted, the tuition will be credited to his account so that it may be applied toward costs for any one of the following four quarters.

Fees other than tuition cannot be refunded or held for subsequent quarters. Statements from employers or doctors may be required before requests for refunds or "holds" are processed.

## **OTHER FEES**

No laboratory, breakage or property damage fees will be charged to students. However, in case of breakage or damage due to gross negligence or maliciousness, a student will be expected to reimburse the institution. Academic credit and official transcripts may be withheld until proper payment is made.

## **FINANCIAL AID**

The purpose of financial aid is to provide financial assistance to students who would otherwise be unable to continue their education. The financial need of a student is determined by the resources available to him in relation to educational expenses.

Students applying for financial aid should complete and return the Institute's Application for Financial Aid, and the College Scholarship Service Financial Aid Form.

These forms should be completed no later than May 1 preceding the academic year for which aid is requested. As financial aid awards are for only one academic year, students must reapply each year. Requests after May 1 will be processed as long as funds are available.

To be eligible for financial assistance a student must be enrolled or accepted for enrollment and demonstrate a need for financial aid. Financial assistance is available in a variety of forms to help students who meet the need criteria for eligibility. Scholarships, loans, grants, and work-study may be used singly or in combination to meet a student's total need.

Financial Aid brochures containing more detailed information are available in the Financial Aid Office.

NOTE: In order to continue participation in any of the following financial aid programs, a student must be enrolled at least half-time and maintain a 2.00 cumulative grade point average.

## **GRANTS**

### **Basic Education Opportunity Grant**

The Basic Education Opportunity Grant program is a Federal Aid program designed to provide financial assistance to those who need it to attend post-high school educational institutions. The awards, for a year, normally range between \$200 and \$838. Students may apply by completing the CSS Financial Aid Form or the Basic Education Opportunity Grant Application. Applications may be obtained at the Financial Aid Office. Students should allow six weeks for processing.

### **Supplemental Educational Opportunity Grant**

This program is funded by the Federal Government and is for students of exceptional financial need, who without a grant, would be unable to continue their education. A Supplemental Educational Opportunity Grant may not exceed one-half of a student's total financial need. The remaining portion of the recipient's need is met by matching the grant with other financial funds.

### **North Carolina Student Incentive Grant**

This program is designed for students of exceptional financial need who are North Carolina residents. Students applying for the NCSIG must do so before March 31.

## **WORK STUDY**

Work-Study is a federally supported program through which students primarily from low income families are given preference for part-time employment (up to 15 hours per week). Students must be enrolled at least half-time to apply for work-study and maintain a 2.00 cumulative average.

## LOANS

The Financial Aid Office maintains a file on sources of financial aid for students. Loans at a low rate of interest are available through the following agencies:

James E. and Mary Z. Bryan Foundation

N.C. Insured Student Loan Program

North Carolina Funds for Vocational and Technical Students

Winston-Salem Foundation\*

\*Available to Forsyth County Residents only.

## N.C. INSURED STUDENT LOAN PROGRAM

Legal residents of North Carolina, who have been accepted for enrollment or are enrolled in good standing and maintaining satisfactory progress, may borrow up to \$2,500 or one-half the estimated cost of education per year through College Foundation, Inc. Loans are insured by the State Education Assistance Authority and the U.S. Office of Education pays the 7 percent interest during the inschool and grace periods. Apply through the Institution's Financial Aid Office.

## SCHOLARSHIPS

The Winston-Salem Kiwanis and the Twin City Kiwanis Club award scholarships to seniors graduating from Forsyth County schools each year. The awarding of these scholarships is not controlled by the Institute.

The L. Carroll Lennon Scholarship Fund is donated by Read's Uniform Center, Inc. The award is given each year to a 1st and 2nd year Associate Degree Nursing student and a Practical Nurse Education student. Recipients for this award are referred by the Financial Aid Office.

The Norman Gaddis Scholarship is a perpetual scholarship available to a deserving, needy student and is sponsored by the Student Government Association.

The Marshall Paul Johnston Scholarship is a perpetual scholarship available to Automotive Mechanics students only.

The Jane Gaither Murray Scholarship is awarded annually to a deserving student entering the Associate Degree Nursing curriculum.

The Mary B. Lauerman Memorial Scholarship is awarded annually to an outstanding student entering the second year of Associate Degree Nursing.

The Sandra Johnson Memorial Scholarship is awarded annually to an outstanding student entering the second year of Executive Secretarial Science.

The Data Processing Management Association Scholarship is awarded annually to an outstanding student entering the second year of Electronic Data Processing.

The RJR Archer Scholarship is awarded annually to an outstanding student entering the second year of Manufacturing Engineering Technology.

The Henry F. Snyder Scholarship is primarily an emergency scholarship for students, eligible for financial aid, when funds are not available from other sources.

Other than the scholarships listed above, there are various individuals and organizations who contribute money yearly for scholarships for needy students. Most of the money available is not restricted, however, some of the scholarships are restricted to individuals enrolled in specific programs.

### **V.A., SOCIAL SECURITY AND D.V.R. BENEFITS**

The Institute is approved for the training of persons eligible for benefits under the Veterans Administration, Social Security Commission and Division of Vocational Rehabilitation.

Additional information concerning these benefits is available at the VA/Financial Aid Office or from offices of the above named agencies.

Students receiving V.A. benefits are responsible for learning how to file their reports, for the accuracy of their reports, and for notifying the Veterans Officer if they withdraw from any class or from school.

An information handbook for veterans is available upon request from the office of Veterans Affairs.

## **ORGANIZATIONS AND ACTIVITIES**

### **STUDENT GOVERNMENT ASSOCIATION**

The Student Government Association serves to promote interest in student affairs both on and off campus. The Association is composed of representatives elected from each curriculum by the students of that curriculum. Student Government officers are elected by the student body. Faculty or staff members are appointed by the administration to serve in an advisory capacity to the Student Government Association.



## **STUDENT REPRESENTATION ON BOARDS AND COMMITTEES**

The President of the Student Government Association is a non-voting member of the Board of Trustees of the Institute. Student representatives also serve on the Academic Review Committee, the Disciplinary Review Committee, and other committees concerned with students.

## **CIRCLE K**

The Circle K is a national collegiate service club sponsored by Kiwanis International. The club is open to male and female students who are invited to membership at intervals during the year.

## **ADMINISTRATIVE MANAGEMENT SOCIETY**

The A.M.S., as it is usually called, is a national business club open to students in the field of Business Administration. To be eligible for invitation to membership, a student must have earned a grade point average of 3.0 by the end of the first quarter. Second year students must have maintained an average of 2.5. Membership is by invitation.

## **SOCIETY OF ENGINEERING TECHNOLOGY STUDENTS**

The Society of Engineering Technology Students is a service and social club open to students from the Manufacturing Engineering, and Drafting and Design Engineering Technology programs. This club, in its first year of existence, has raised and set aside funds for endowing a scholarship open to second quarter students in these two fields of technology.

## **LAW ENFORCEMENT ADMINISTRATION SOCIETY (LEAS)**

Membership in LEAS is open to both male and female students who are, or have been, enrolled in a course of study in the areas of the Administration of Criminal Justice.

The objectives of the organization are to promote public understanding of the problems and objectives in the areas of the administration of criminal justice and to elevate the standards and foster greater understanding between the agencies and departments in all areas of the administration of criminal justice.

## **OTHER ORGANIZATIONS**

Students are encouraged to affiliate with student chapters of various professional and technical organizations and societies.

## **ATHLETICS**

The Institute does not offer a formal, organized athletic program. The students themselves have organized basketball, softball and bowling teams and compete in Winston-Salem city leagues in these sports. Volunteers from the faculty serve as sponsors and coaches of the teams.

## **STUDENT PUBLICATIONS**

Students are encouraged to participate actively in the preparation of the *F.T.I. Reporter* and *Reflector*, the two major student publications.

The *F.T.I. Reporter* is the student newspaper written, edited and managed by the student staff with the assistance of a faculty advisor.

The *Reflector*, the yearbook of the Institute, is written, edited and managed by the student yearbook staff with the assistance of a faculty advisor.

## **OTHER STUDENT SERVICES**

### **GUIDANCE AND COUNSELING SERVICE**

The Office of Student Services maintains a staff of trained counselors whose services are available to students needing help with educational, vocational, financial, or personal problems.

Each full-time student at the Institute is assigned a faculty advisor who is available for help with problems related to the student's course work. The Advisor serves as a direct link between the student and the administrative staff of the Institute.

Several individualized special tests and inventories are available for counseling purposes through the Office of Student Services. Both students and faculty members may obtain information on their availability and value by contacting the Counseling Center.

The Adult Career Guidance Center is a full service career center available to all students and applicants. Among the wide range of services available are career counseling, resumé information, aptitude and interest testing, and job placement information.

### **HOUSING**

Since the Institute has no dormitory facilities, students who wish to live away from home must make their own housing arrangements. The Institute takes no responsibility for locating or supervising student housing; however, suggestions as to location of off-campus housing may be obtained in the Office of Student Services.

## **HEALTH SERVICES**

Limited health services are provided through the Office of Student Services and first-aid supplies located in shop areas; however, injuries requiring more than minor first-aid treatment will be treated in the emergency room of a nearby hospital.

For major illness or injury, ambulance transportation is available to either of the two hospitals, both of which are located within two miles of the Institute.

## **ACCIDENT INSURANCE**

Accident insurance covering the hours a student is in school or on field trips is provided to all full-time and part-time curriculum students. This student insurance is furnished by the Institute as a service to students, but it is not meant to replace a student's personal coverage.

## **HOSPITALIZATION INSURANCE**

All full-time students below age 26 are eligible to obtain Blue Cross-Blue Shield Group Insurance at special student rates.

Provisions for this are made through individual contact of the student and Blue Cross-Blue Shield Insurance Co.

## **LIABILITY INSURANCE FOR HEALTH STUDENTS**

All health students must purchase liability insurance before they will be permitted to enter the hospitals for clinical practice. The cost of the insurance may range from \$9.00 to \$30.00 depending on the insurance carrier and must be purchased at the beginning of the Fall Quarter or whenever a student enters a health program.

## **FOOD SERVICE**

Canteen service is available in the Student Center which is located on the ground level of Snyder Hall. A variety of hot and cold foods and drinks is available.

Canteen service is available at both the student lounge in the Allied Health Building and the student lounge in the Paramedical Building at Forsyth Memorial Hospital.

## **STUDENT CENTERS**

A large, attractive Student Center is located on the ground level of Snyder Hall. Students are encouraged to use the Center as a place in which to meet, chat, eat and relax. A study lounge is also available next to the Bookstore for a quiet place to study.

Student lounges are also available for students in the health programs in the Allied Health Building and in the Paramedical Building at Forsyth Memorial Hospital.

## **LIBRARY**

### **Main Campus**

The library is located in the Administration Building and contains reference and circulatory books which are available to all citizens of the area. Additional holdings are being acquired at the rate of approximately 2,500 volumes per year. Also housed in the library are such audio-visual media as slides, films, filmstrips, tapes, records and micro-film. These media are constantly being added to the library's collection and lend greater variety to available sources of information.

The library is open Monday through Thursday, from 7:30 a.m. until 8:30 p.m. and on Friday from 7:30 a.m. until 4:30 p.m.

### **Forsyth Memorial Hospital**

Students have access to the library in the Forsyth Memorial Hospital Paramedical Building which is open from 8:00 a.m. to 5:00 p.m. Monday through Friday.

### **Allied Health Building**

Students have access to the library which is on the first floor of the Allied Health Building and is open Monday through Thursday from 8:00 a.m. to 9:00 p.m. and on Friday from 8:00 a.m. to 5:00 p.m.

Library cards are given out to new students during Library Orientation. Should cards be lost, there is a \$3.00 replacement fee. Each student is responsible for materials checked out on his card. No overdue fines are imposed on regular books, however, there is a 25 cents an hour fine (up to the cost of the book) on reserve books checked out overnight and due in one hour after the Library opens.

The student is responsible for replacing books that are lost or damaged. Until such replacement is made, library privileges will be revoked and grades may be withheld.

## **BOOKSTORE**

A school bookstore is operated by the Institute as a service to students, faculty and staff. Textbooks, school supplies and course-related materials, as well as other items of special interest to students, are offered for sale. The bookstore is adjacent to the Student Center in Snyder Hall and is open Monday through Friday from 9:00 a.m. until 3:00 p.m. and on Monday, Tuesday, and Thursday evenings from 6:00 p.m. until 8:00 p.m.

Summer quarter evening hours will be posted at Bookstore.



## **LOST AND FOUND SERVICE**

Lost and found articles will be handled at the Reception Desk in the 100 Building on the main campus.

## **PRE-TECHNICAL PROGRAM**

The Pre-Technical program provides students with an opportunity to build academic skills and acquire the background which should facilitate entrance into their desired curriculum program.

For those applicants to degree programs who, on the basis of test results and past performance, do not qualify for immediate admission to their chosen program of study, non-credit developmental course work is available and is required as a condition of admission.

Students register each quarter for courses selected from a group of courses designed to prepare them for their chosen program and to meet each individual's needs or goals.

Students may then transfer into their curriculum program when the criteria has been met and pre-technical and selected curriculum courses have been completed. All curriculum courses successfully completed will then be applied toward graduation.

Developmental courses are also open to students who wish to take them for personal benefit.

## **INDIVIDUALIZED LEARNING CENTER**

The Individualized Learning Center offers courses for adult enrichment, adult high school, and regular curriculum courses. The Learning Center is also used by persons preparing for the high school equivalency test and for college entrance tests such as the CGP. Students in the Learning Center use programmed, self-instructional books, audio-visual materials and have access to a coordinator for personal help. Experience has shown that motivated, self-disciplined adults learn well using this approach.

The Learning Center also offers supplemental work for various curriculum courses such as mathematics. A computer terminal provides access to computer assisted instruction in tutorial form as well as simulation games. Students may enroll at any time and there is no cost except for the Adult High School courses. Students must be enrolled at Forsyth Tech in order to take curriculum courses.

## **HIGH SCHOOL EQUIVALENCY**

Adult residents of North Carolina who have not completed high school may earn a Certificate of High School Equivalency by passing a

battery of five tests. These tests are known alternately as the high school equivalency test and the GEDT (General Education Development Tests).

A Certificate of High School Equivalency is recognized across the nation by most employers and educational institutions.

Persons interested in taking the GED tests should apply at any of the Institute's Individualized Learning Centers.

The GEDT program is designed primarily for adults 18 years of age and older; however, 16 and 17 year olds are allowed to take the tests if they meet certain conditions. It is the policy of Forsyth Technical Institute to encourage young people to complete the regular high school before seeking admission. Current residency in North Carolina is required.

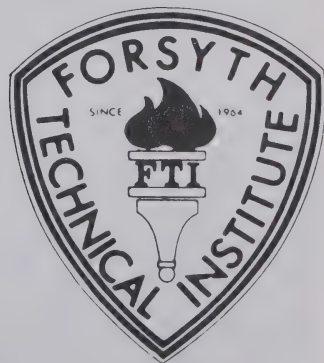
Forsyth Technical Institute is one of 71 official GEDT testing centers in North Carolina and is the only one in Forsyth County. The center administers the tests daily by appointment. The Institute may be contacted for further information.

### CHANGES IN REGULATIONS

Forsyth Technical Institute reserves the right without prior notice, to make changes in regulations, courses, fees, and other matters of policy and procedure when and as deemed necessary.



**ASSOCIATE IN APPLIED  
SCIENCE DEGREE PROGRAMS**



## ARCHITECTURAL TECHNOLOGY T-041

The architectural technician is concerned with turning the architect's design sketches into complete and accurate working plans and detail drawings for construction purposes. He may prepare floor plans; elevation drawings; construction details; mechanical equipment layouts; door, room and window schedules; and site plans. The technician will be involved in work requiring a knowledge of building codes, specifications and contract documents.

The curriculum was designed in cooperation with the North Carolina Chapter of the American Institute of Architects. It provides the individual with knowledge and skills that will lead to employment in the field of architectural drafting and afford opportunity for rapid advancement in technical knowledge and proficiency.

### Curriculum By Quarters

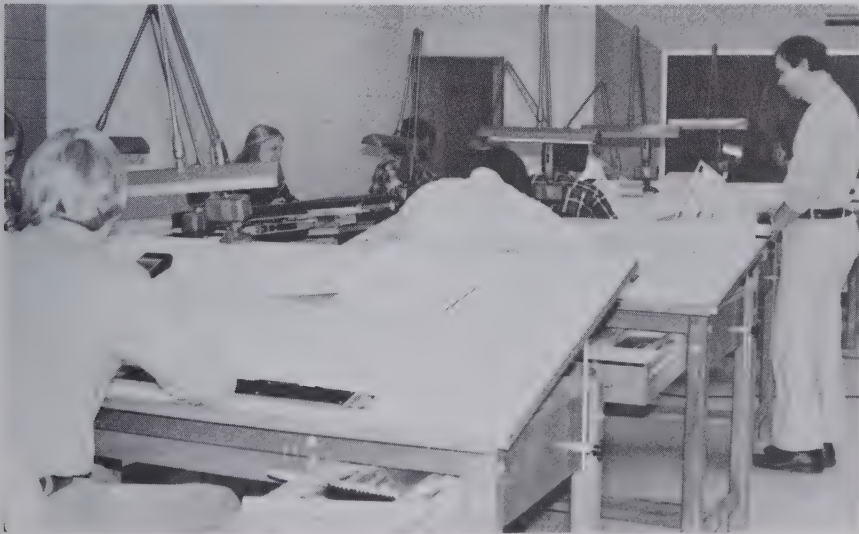
Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
MAT 101	Technical Mathematics I	5	0	0	5
ENG 100	Oral Communication	3	0	0	3
DFT 106	Architectural Drafting I	2	0	6	4
DFT 181	History of Architecture and Construction	5	0	0	5
		15	0	6	17
<b>SECOND QUARTER</b>					
MAT 102	Technical Mathematics II	5	0	0	5
ENG 101	Introduction to Written Communication	3	0	0	3
CIV 105	Architectural Materials and Methods	3	2	0	4
DFT 107	Architectural Drafting II	2	0	6	4
		13	2	6	16
<b>THIRD QUARTER</b>					
MAT 103	Technical Mathematics III	5	0	0	5
AHR 106	Architectural Mechanical Equipment	3	0	3	4
PHY 111	Physics: Mechanics	3	2	0	4
DFT 108	Architectural Drafting III	0	0	9	3
		11	2	12	16
<b>FOURTH QUARTER</b>					
MEC 104	Applied Mechanics	5	0	0	5
DFT 150	Site Planning	2	0	6	4
PHY 113	Physics: Electricity	3	2	0	4
ECO 102	Economics	3	0	0	3
		13	2	6	16



Course Title			Hours Per Week			
			C	L	P	QH
FIFTH QUARTER						
MEC	205	Strength of Materials	3	2	0	4
DFT	220	Architectural Drafting IV	2	0	9	5
ENG	102	Composition	3	0	0	3
DFT	233	Office Practice Seminar	2	0	0	2
			10	2	9	14
SIXTH QUARTER						
DFT	221	Architectural Drafting V	2	0	9	5
DFT	235	Codes, Specifications, and Contract Documents	3	0	3	4
PSY	206	Applied Psychology	3	0	0	3
ENG	103	Technical Report Writing	3	0	0	3
		Elective*	3	0	0	3
			14	0	12	18
SEVENTH QUARTER						
PHY	114	Physics: Light and Sound	3	2	0	4
ISC	201	Industrial Organization and Management	3	0	0	3
DFT	222	Architectural Drafting VI	2	0	9	5
DFT	236	Construction Estimating and Field Inspecting	3	0	3	4
		Elective*	3	0	0	3
			14	2	12	19

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

- C - Class
- L - Lab
- P - Practicum
- QH - Quarter Hours Credit



## ASSOCIATE DEGREE NURSING T-059

This program provides a combination of general education and nursing education. Clinical experience is provided in selected hospitals and other community health agencies. Graduates receive an Associate in Applied Science degree in Nursing and are eligible to write the State Board Test Pool Licensing Examination to become Registered Nurses.

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
BIO 107	Anatomy and Physiology I	3	2	0	4
ENG 101	Introduction to Written Communication	3	0	0	3
MAT 100	Mathematics for Nursing Education	3	0	0	3
NUR 111	Nursing I	4	2	0	5
NUR 112	Clinical Practice I	0	0	9	3
		13	4	9	18
<b>SECOND QUARTER</b>					
BIO 108	Anatomy and Physiology II	3	2	0	4
CHM 103	Chemistry—General and Inorganic	3	2	0	4
PSY 101	Psychology	3	0	0	3
NUR 113	Nursing II	5	2	0	6
NUR 114	Clinical Practice II	0	0	9	3
		14	6	9	20
<b>THIRD QUARTER</b>					
	Elective*	3	0	0	3
BIO 111	Microbiology	3	2	0	4
ENG 102	Composition	3	0	0	3
NUR 115	Nursing III	6	0	0	6
NUR 116	Clinical Practice III	0	0	12	4
		15	2	12	20
<b>FOURTH QUARTER</b>					
NUR 3008	Cardiopulmonary Resuscitation (CPR)**	0	0	0	0
PSY 110	Life Span Psychology	3	0	0	3
SOC 103	Sociology	3	0	0	3
NUR 117	Nursing IV	4	0	0	4
NUR 118	Clinical Practice IV	0	0	15	5
		10	0	15	15
<b>FIFTH QUARTER</b>					
	Elective*	3	0	0	3
NUR 210	Nursing V	5	0	0	5
NUR 211	Clinical Practice V	0	0	18	6
		8	0	18	14

Course Title			Hours Per Week			
			C	L	P	QH
SIXTH QUARTER						
HIS	111	American History	3	0	0	3
NUR	212	Nursing VI	5	0	0	5
NUR	213	Clinical Practice VI	0	0	18	6
			8	0	18	14
SEVENTH QUARTER						
Elective*			3	0	0	3
POL	212	American Government	3	0	0	3
NUR	214	Nursing VII	4	0	0	4
NUR	215	Clinical Practice VII	0	0	18	6
			10	0	18	16

\*Unspecified electives may be any course in any associate degree program provided students meets prerequisites.  
\*\*CPR certification by American Heart Association required for graduation.

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



## BANKING AND FINANCE T-112

The Banking and Finance program is intended to provide inservice banking employees with professional preparation in the banking industry for the purpose of improving job performance as well as to prepare students for management positions. The program is also available to students who wish to pursue a career in banks, savings and loan associations, or other financial institutions. By completing the various requirements shown in the detailed curriculum listing, the student can earn AIB credit as well as earning the Associate in Applied Science degree.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
ENG	100	Oral Communication	3	0	0	3
BUS	101	Introduction to Business	5	0	0	5
BUS	109	Business Mathematics	5	0	0	5
BUS	102	Typewriting I	2	0	3	3
			15	0	3	16
SECOND QUARTER						
ENG	101	Introduction to Written Communication	3	0	0	3
AIB	202	Principles of Bank Operations	4	0	0	4
BUS	120	Accounting I	4	0	3	5
BUS	110	Office Machines I	2	0	3	3
			13	0	6	15
THIRD QUARTER						
ENG	102	Composition	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	121	Accounting II	4	0	3	5
ECO	102	Economics I	3	0	0	3
AIB	209	Installment Credit	4	0	0	4
			17	0	3	18
FOURTH QUARTER						
BUS	116	Business Law II	3	0	0	3
EDP	101	Principles of Business Data Processing	3	2	0	4
AIB	231	Savings and Time Deposit	4	0	0	4
AIB	210	Money and Banking	4	0	0	4
ECO	104	Economics II	3	0	0	3
			17	2	0	18



**Course Title**

**Hours Per Week**  
**C L P QH**

**FIFTH QUARTER**

ENG	205	Business Report Writing	3	0	0	3
PSY	206	Applied Psychology	3	0	0	3
AIB	205	Bank Management	4	0	0	4
BUS	232	Sales Development	3	0	0	3
		Elective*	3	0	0	3
			16	0	0	16

**SIXTH QUARTER**

ENG	206	Business Communications	3	0	0	3
AIB	233	Analysis of Financial Statements	4	0	0	4
BUS	209	Real Estate Finance	5	0	0	5
AIB	203	Bank Investments	4	0	0	4
			16	0	0	16

**SEVENTH QUARTER**

AIB	239	Marketing for Bankers	4	0	0	4
AIB	235	Loan and Discount	4	0	0	4
BUS	272	Principles of Supervision	3	0	0	3
		Elective*	3	0	0	3
			14	0	0	14

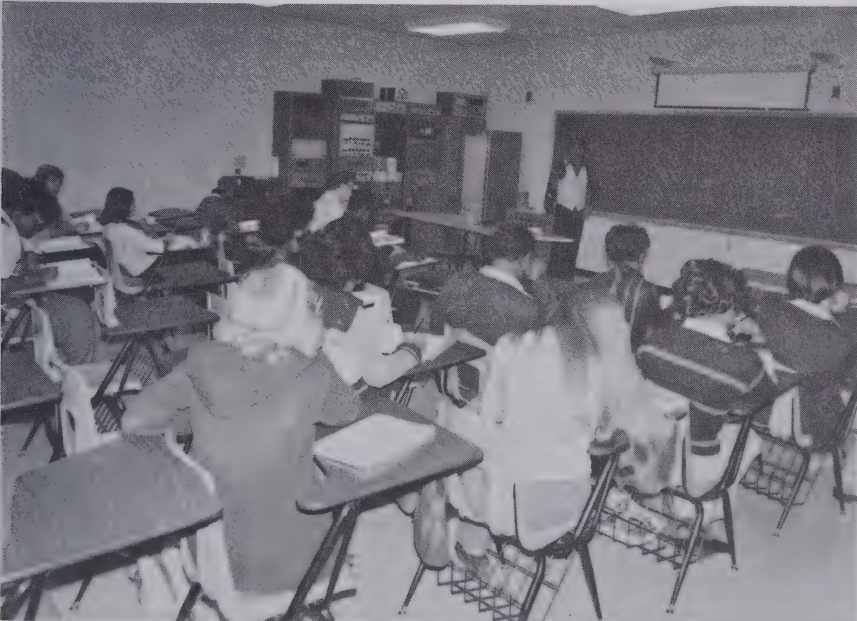
\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit



### BUSINESS ADMINISTRATION T-018

The distribution of goods has been generally recognized as the largest single problem in business. Techniques for mass production of goods have been perfected, and better ways to get these products to the consumer are needed.

The Business Administration program is designed to (1) develop the student's knowledge of the fundamentals of marketing and distribution and to provide him with an understanding of organization and management, (2) develop skills in selling, advertising, and finance and (3) familiarize the student with growth problems confronting business today.

Jobs available which graduates could fill are in the areas of retailing, wholesaling, industrial marketing, finance, and service industries. Service performed by graduates include sales, advertising, merchandising, buying, credit and personnel.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
ENG	100	Oral Communication	3	0	0	3
BUS	102	Typewriting I	2	0	3	3
BUS	109	Business Mathematics	5	0	0	5
BUS	101	Introduction to Business	5	0	0	5
			15	0	3	16
<b>SECOND QUARTER</b>						
ENG	101	Introduction to Written Communication	3	0	0	3
BUS	120	Accounting I	4	0	3	5
ECO	102	Economics I	3	0	0	3
BUS	110	Office Machines I	2	0	3	3
			12	0	6	14
<b>THIRD QUARTER</b>						
ENG	102	Composition	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	121	Accounting II	4	0	3	5
ECO	104	Economics II	3	0	0	3
			13	0	3	14
<b>FOURTH QUARTER</b>						
BUS	116	Business Law II	3	0	0	3
EDP	101	Principles of Business Data Processing	3	2	0	4
BUS	229	Taxes	2	0	3	3
BUS	239	Marketing	5	0	0	5
			13	2	3	15

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIFTH QUARTER</b>						
ENG	205	Business Report Writing	3	0	0	3
BUS	123	Business Finance I	3	0	0	3
BUS	232	Sales Development	3	0	0	3
		Elective*	3	0	0	3
PSY	206	Applied Psychology	3	0	0	3
			15	0	0	15
<b>SIXTH QUARTER</b>						
ENG	206	Business Communications	3	0	0	3
BUS	124	Business Finance II	3	0	0	3
BUS	243	Advertising	4	0	0	4
BUS		Electives	6	0	0	6
			16	0	0	16
<b>SEVENTH QUARTER</b>						
		Elective*	3	0	0	3
BUS	235	Business Management	5	0	0	5
BUS	272	Principles of Supervision	3	0	0	3
BUS		Electives	6	0	0	6
			17	0	0	17

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit



## BUSINESS ADMINISTRATION/ACCOUNTING OPTION T-018

Accounting is one of the fastest growing employment fields in America today. These opportunities result from the tremendous business and industrial expansion in all parts of the country. Because of this emphasis, there is a growing need for trained people in the area of accounting to help managers keep track of a firm's operation. The Accounting curriculum is designed to fill this need by offering students the necessary accounting theories and skills for entry into the accounting profession.

The Accounting curriculum is designed to give the student an understanding of the principles of organization and management in business operations, an understanding of the statements, and skill in effective communication for business.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
ENG	100	Oral Communication	3	0	0	3
BUS	120	Accounting I	4	0	3	5
BUS	109	Business Math	5	0	0	5
BUS	102	Typewriting I	2	0	3	3
			14	0	6	16
<b>SECOND QUARTER</b>						
ENG	101	Introduction to Written Communication	3	0	0	3
BUS	121	Accounting II	4	0	3	5
BUS	229	Taxes	2	0	3	3
BUS	110	Office Machines I	2	0	3	3
			11	0	9	14
<b>THIRD QUARTER</b>						
ENG	102	Composition	3	0	0	3
BUS	122	Accounting III	4	0	3	5
ECO	102	Economics I	3	0	0	3
BUS	230	Advanced Taxes	2	0	3	3
MAT	116	Fundamental Concepts of Statistics	5	0	0	5
			17	0	6	19
<b>FOURTH QUARTER</b>						
EDP	101	Principles of Business Data Processing	3	2	0	4
BUS	221	Intermediate Accounting I	5	0	0	5
ECO	104	Economics II	3	0	0	3
BUS	115	Business Law I	3	0	0	3
			14	2	0	15



Course Title			Hours Per Week			
			C	L	P	QH
FIFTH QUARTER						
ENG	205	Business Report Writing	3	0	0	3
BUS	222	Intermediate Accounting II	5	0	0	5
BUS	123	Business Finance I	3	0	0	3
EDP	120	Introduction to Computer Programming	3	2	0	4
BUS	116	Business Law II	3	0	0	3
			17	2	0	18
SIXTH QUARTER						
ENG	206	Business Communications	3	0	0	3
BUS	227	Intermediate Accounting III	2	0	3	3
BUS	225	Managerial Cost Accounting I	2	0	3	3
BUS	124	Business Finance II	3	0	0	3
		Elective*	3	0	0	3
			13	0	6	15
SEVENTH QUARTER						
BUS	226	Managerial Cost Accounting II	2	0	3	3
BUS	223	Governmental Accounting	2	0	3	3
BUS	269	Auditing	2	0	3	3
BUS	272	Principles of Supervision	3	0	0	3
		Elective*	3	0	0	3
			12	0	9	15

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



### EARLY CHILDHOOD SPECIALIST T-073

Early childhood specialists are concerned with providing for infants and young children in a program which will promote the optimal development of each child. The specialist must understand and be able to (1) meet the physical and nutritional needs of pre-school children; (2) provide activities which stimulate intellectual, emotional and social growth of children; (3) guide children in the formation of acceptable habits and attitudes; and (4) assist children in their learning to communicate effectively with others. In addition, the early childhood education specialist must be able to work effectively with parents and, where necessary, provide guidance in improving the child's home experience.

This curriculum is designed to provide the educational preparation of individuals to serve in a variety of roles in facilities concerned with the care and development of infants and young children. It also provides individuals with the knowledge, understanding and skills needed to work effectively with pre-school children in various stages of development.

The program is built around the developmental approach which aims for the optimal development of each child. As staffing requirements of both day care and residential facilities increase, graduates of this curriculum should find many different types of jobs available.

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
ENG 100	Oral Communications	3	0	0	3
PSY 102	Introduction to Psychology	5	0	0	5
EDU 101	Child Growth and Development	6	0	0	6
HEA 101	Personal Health and Hygiene	3	0	0	3
		17	0	0	17
<b>SECOND QUARTER</b>					
ENG 101	Introduction to Written Communication	3	0	0	3
PSY 105	Human Growth and Development: Prenatal and Infancy	3	0	0	3
EDU 102	Programs for Young Children	4	2	0	5
EDU 107	Communicating with Young Children	3	2	0	4
PSY 112	Personality Development	3	0	0	3
		16	4	0	18

Course Title			Hours Per Week			
			C	L	P	QH
THIRD QUARTER						
SCI	101	General Science	3	0	0	3
ENG	102	Composition	3	0	0	3
PSY	205	Child Psychology	3	0	0	3
EDU	103	Working with Young Children	4	0	10	5
NUT	102	Nutrition for Young Children	3	2	0	4
			16	2	10	18
FOURTH QUARTER						
ENG	207	Educational Report Writing	3	0	0	3
EDU	112	Language Arts in Early Childhood	3	0	0	3
EDU	108	Social Studies in Early Childhood	3	0	0	3
EDU	104	Art for the Young Child	3	0	0	3
EDU	110	Instructional Media and Resources	2	0	3	3
EDU	113	Health and Safety for Young Children	3	2	0	4
			17	2	3	19
FIFTH QUARTER						
SOC	103	Sociology	3	0	0	3
ENG	116	Children's Literature	3	0	0	3
EDU	105	Music and Creative Movement for Young Children	3	0	0	3
EDU	106	Activities for Young Children—Science and Math	5	0	10	6
			14	0	10	15
SIXTH QUARTER						
EDU	203	The Exceptional Child	3	2	0	4
EDU	202	Seminar Co-op in Early Childhood	5	0	10	6
SOC	105	Families in the American Culture	3	0	0	3
EDU	109	Physical Activities: Games for Young Children	2	2	0	3
			13	4	10	16
SEVENTH QUARTER						
EDU	206	Special Problems	3	0	0	3
EDU	211	Practice Teaching	4	0	20	6
EDU	204	Parent Education	3	0	0	3
			10	0	20	12

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

## ELECTRONIC DATA PROCESSING— BUSINESS T-022

Computers and information sciences have affected the lives of most Americans, and benefits derived from computers have caused increased demands for personnel in computer science. Because the training of programming personnel on the job is so expensive, there is an increasing demand for the qualified graduate in this area. Such a graduate must think analytically and logically; understand data processing concepts; possess programming skills; and have a knowledge of business, mathematics, accounting, and English sufficient to enable him to use his programming skills effectively.

The Electronic Data Processing program is designed to train students for employment as computer programmers in business. Students write and test programs in the languages used most widely in business today with particular emphasis placed on COBOL. Students program on up-to-date equipment of the type most used in industry. A study of computer systems and basic systems design and analysis is included.

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
ENG 100	Oral Communication	3	0	0	3
MAT 111	EDP Mathematics I	5	0	0	5
EDP 100	Introduction to Data Processing	3	2	0	4
EDP 102	Logic and Decision Making	5	0	0	5
		16	2	0	17
<b>SECOND QUARTER</b>					
BUS 120	Accounting I	4	0	3	5
MAT 112	EDP Mathematics II	5	0	0	5
EDP 105	Assembly Language Programming I	5	2	0	6
		14	2	3	16
<b>THIRD QUARTER</b>					
ENG 101	Introduction to Written Communication	3	0	0	3
BUS 121	Accounting II	4	0	3	5
MAT 116	Fundamental Concepts of Statistics	5	0	0	5
EDP 110	COBOL Programming I	3	2	0	4
		15	2	3	17
<b>FOURTH QUARTER</b>					
ENG 102	Composition	3	0	0	3
	EDP Selection	3	2	0	4
EDP 111	COBOL Programming II	2	4	0	4
EDP 201	Computer Systems	3	2	0	4
		11	8	0	15



Course Title		Hours Per Week			
		C	L	P	QH
FIFTH QUARTER					
ENG 206	Business Communications	3	0	0	3
EDP 112	COBOL Programming III	2	4	0	4
EDP 205	Systems Design and Analysis I	3	2	0	4
	EDP Selection	3	2	0	4
		11	8	0	15
SIXTH QUARTER					
	Sociology Elective	3	0	0	3
EDP 206	Systems Design and Analysis II	3	2	0	4
	EDP Selection	3	2	0	4
	Business Elective	3	0	0	3
		12	4	0	14
SEVENTH QUARTER					
ENG 205	Business Report Writing	3	0	0	3
EDP 210	Language Survey	2	0	0	2
EDP 220	Research Project	1	8	0	5
	EDP Selection	3	2	0	4
		9	10	0	14

EDP Selections will be specified by the Institution from the following list of courses:

EDP 106	Assembly Language Programming II	2	4	0	4
EDP 230	Introduction to FORTRAN	3	2	0	4
EDP 240	PL/1 Programming I	3	2	0	4
EDP 250	RPG Programming	3	2	0	4

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



## ELECTRONICS ENGINEERING TECHNOLOGY T-045

The past decade has seen an electronics invasion into practically every industrial operation because of the development of the integrated circuit. The ever expanding application of these tiny micro-electronic devices has produced an industrial revolution in the areas of computers, machine controls, communications, entertainment electronics, space technology and medical electronics. As a result, thousands of new job opportunities have emerged for the electronics technician. The individual who expects to enter this fascinating field must acquire the highly specialized skills and knowledge which will enable him to work with engineers and scientists in developing, constructing and testing all kinds of electronic products. This is an ECPD accredited curriculum.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
MAT	101	Technical Mathematics I	5	0	0	5
ENG	100	Oral Communication	3	0	0	3
ELC	101	Fundamentals of Electricity I	5	2	6	8
			<u>13</u>	<u>2</u>	<u>6</u>	<u>16</u>
<b>SECOND QUARTER</b>						
MAT	102	Technical Mathematics II	5	0	0	5
ENG	101	Introduction to Written Communication	3	0	0	3
ELC	102	Fundamentals of Electricity II	5	2	6	8
			<u>13</u>	<u>2</u>	<u>6</u>	<u>16</u>
<b>THIRD QUARTER</b>						
MAT	103	Technical Mathematics III	5	0	0	5
ENG	102	Composition	3	0	0	3
PHY	111	Physics: Mechanics	3	2	0	4
ELN	105	Control Devices	5	2	6	8
			<u>16</u>	<u>4</u>	<u>6</u>	<u>20</u>
<b>FOURTH QUARTER</b>						
MAT	201	Technical Mathematics IV	5	0	0	5
PHY	112	Physics: Materials and Heat	3	2	0	4
ELN	205	Semi-Conductor Applications I	5	2	6	8
			<u>13</u>	<u>4</u>	<u>6</u>	<u>17</u>
<b>FIFTH QUARTER</b>						
ENG	103	Technical Report Writing	3	0	0	3
ELN	210	Semi-Conductor Applications II	5	0	6	7
ELN	218	Pulse, Logic and Digital Circuits	5	0	6	7
			<u>13</u>	<u>0</u>	<u>12</u>	<u>17</u>

Course Title			Hours Per Week			
			C	L	P	QH
<b>SIXTH QUARTER</b>						
DFT	101	Technical Drafting I	2	0	6	4
PSY	206	Applied Psychology	3	0	0	3
ELN	235	Industrial Electronics	3	0	6	5
ELN	219	Digital Fundamentals	4	0	6	6
			12	0	18	18
<b>SEVENTH QUARTER</b>						
PHY	114	Physics: Light and Sound	3	2	0	4
ECO	102	Economics	3	0	0	3
ELN	245	Electronic Design Project	2	0	6	4
ELN	247	Electronic Systems: Computers	4	0	6	6
			12	2	12	17

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



### EXECUTIVE SECRETARIAL SCIENCE T-030

Many individuals are employed in occupations requiring stenographic skills. Practically all secretaries record dictation and transcribe it on the typewriter. Usually they have additional duties related to the nature of the employer's business, and sometimes they have special job titles which reflect skill levels or job specialities. In addition to their stenographic work, secretaries usually relieve employers of routine duties and frequently handle a variety of business details on their own initiative.

The two year program of studies provides instruction in all phases of secretarial work, including the operation of the most up-to-date office machines.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
ENG	100	Oral Communication	3	0	0	3
BUS	109	Business Mathematics	5	0	0	5
ECO	108	Consumer Economics	3	0	0	3
BUS	102	Typewriting I	2	0	3	3
			13	0	3	14
SECOND QUARTER						
ENG	101	Introduction to Written Communication	3	0	0	3
BUS	103	Typewriting II	2	0	3	3
BUS	106	Shorthand I	3	0	3	4
BUS	110	Office Machines I	2	0	3	3
			10	0	9	13
THIRD QUARTER						
ENG	102	Composition	3	0	0	3
BUS	104	Typewriting III	2	0	3	3
BUS	107	Shorthand II	3	0	3	4
BUS	120	Accounting I	4	0	3	5
			12	0	9	15
FOURTH QUARTER						
BUS	108	Shorthand III	3	0	3	4
BUS	105	Typewriting IV	2	0	3	3
BUS	115	Business Law I	3	0	0	3
BUS	211	Office Machines II	2	0	3	3
ENG	205	Business Report Writing	3	0	0	3
			13	0	9	16



Course Title			Hours Per Week			
			C	L	P	QH
FIFTH QUARTER						
BUS	206	Dictation - Transcription I	3	0	3	4
BUS	113	Vocabulary/Terminology I	3	0	0	3
EDP	101	Principles of Business Data Processing	3	2	0	4
ENG	206	Business Communications	3	0	0	3
PSY	112	Personality Development	3	0	0	3
			15	2	3	17
SIXTH QUARTER						
BUS	207	Dictation - Transcription II	3	0	3	4
BUS	214	Secretarial Procedures	4	0	6	6
BUS	213	Filing	3	0	0	3
BUS		Elective	3	0	0	3
			13	0	9	16
SEVENTH QUARTER						
SOC	103	Sociology	3	0	0	3
BUS	208	Dictation - Transcription III	3	0	3	4
BUS	272	Principles of Supervision	3	0	0	3
BUS	219	Office Application (or BUS Elective)	1	0	20	3
			10	0	23	13

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



## EXECUTIVE SECRETARIAL SCIENCE—MACHINE TRANSCRIPTION OPTION—T-033

This course of study is very similar to the Executive Secretarial Science curriculum with one major difference. There is no shorthand offered in this program. In its place are several courses which will prepare these students for handling machine transcription. In many offices shorthand is not used, and in others machine transcription serves the purposes of the employer. In addition, students in this option get two quarters of accounting, a quarter of economics, and a course in vocabulary/terminology.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
ENG	100	Oral Communication	3	0	0	3
BUS	109	Business Mathematics	5	0	0	5
ECO	108	Consumer Economics	3	0	0	3
BUS	102	Typewriting I	2	0	3	3
			13	0	3	14
<b>SECOND QUARTER</b>						
ENG	101	Introduction to Written Communication	3	0	0	3
BUS	103	Typewriting II	2	0	3	3
BUS	110	Office Machines I	2	0	3	3
BUS	120	Accounting I	4	0	3	5
			11	0	9	14
<b>THIRD QUARTER</b>						
ENG	102	Composition	3	0	0	3
BUS	104	Typewriting III	2	0	3	3
BUS	211	Office Machines II	2	0	3	3
BUS	121	Accounting II	4	0	3	5
			11	0	9	14
<b>FOURTH QUARTER</b>						
BUS	105	Typewriting IV	2	0	3	3
BUS	115	Business Law I	3	0	0	3
ENG	205	Business Report Writing	3	0	0	3
ECO	102	Economics I	3	0	0	3
BUS	232	Sales Development	3	0	0	3
			14	0	3	15

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIFTH QUARTER</b>					
BUS 112	Techniques of Machine Transcription	2	0	3	3
PSY 112	Personality Development	3	0	0	3
ENG 206	Business Communications	3	0	0	3
EDP 101	Principles of Business Data Processing	3	2	0	4
BUS 113	Vocabulary/Terminology I	3	0	0	3
		14	2	3	16
<b>SIXTH QUARTER</b>					
PSY 206	Applied Psychology	3	0	0	3
BUS 214	Secretarial Procedures	4	0	6	6
BUS 213	Filing	3	0	0	3
BUS 212	Machine Transcription	2	0	3	3
BUS 114	Vocabulary/Terminology II	3	0	0	3
		15	0	9	18
<b>SEVENTH QUARTER</b>					
SOC 103	Sociology	3	0	0	3
BUS 215	Machine Transcription	2	0	3	3
BUS 272	Principles of Supervision	3	0	0	3
BUS 219	Office Application (or BUS Elective)	1	0	20	3
		9	0	23	12

C - Class  
 L - Lab  
 P - Practicum  
 QH - Quarter Hours Credit



## INDUSTRIAL MANAGEMENT TECHNOLOGY T-049

Industry's needs in positions of supervision and mid-management have grown complex with the development of new methods of manufacturing and with the changes in the national economy. This need has added emphasis to the necessity for well-trained individuals that can understand new methods and keep abreast of trends in the economy. The supervisor and persons in mid-management must be concerned daily with human behavior and the psychological factors which affect personnel working under their direction. They must also be conscious of the responsibilities of their position toward the total economic well being of the industry.

These requirements have set forth the objectives in developing this program to prepare people for supervisory and mid-management responsibilities in industry.

The program is prepared to develop the individual's abilities in the art of communicating with his fellow worker by providing him with training in business and industrial management, psychology, production methods, and the general and social education that broadens one's perspective. This training should provide one with the opportunity to enter into an industrial occupation and, with experience, assume the responsibilities that go with supervisory and mid-management positions in industry.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
ENG	100	Oral Communication	3	0	0	3
BUS	120	Accounting I	4	0	3	5
MAT	101	Technical Mathematics I	5	0	0	5
BUS	101	Introduction to Business	5	0	0	5
			17	0	3	18
SECOND QUARTER						
ENG	101	Introduction to Written Communication	3	0	0	3
BUS	121	Accounting II	4	0	3	5
ECO	102	Economics I	3	0	0	3
MAT	102	Technical Mathematics II	5	0	0	5
			15	0	3	16



Course Title		Hours Per Week			
		C	L	P	QH
THIRD QUARTER					
ENG 102	Composition	3	0	0	3
BUS 115	Business Law I	3	0	0	3
MAT 116	Fundamental Concepts of Statistics	5	0	0	5
ECO 104	Economics II	3	0	0	3
BUS 225	Managerial Cost Accounting I	2	0	3	3
		16	0	3	17
FOURTH QUARTER					
EDP 101	Principles of Business Data Processing	3	2	0	4
ENG 205	Business Report Writing	3	0	0	3
PSY 206	Applied Psychology	3	0	0	3
BUS 226	Managerial Cost Accounting II	2	0	3	3
ISC 201	Industrial Organization and Management	3	0	0	3
		14	2	3	16
FIFTH QUARTER					
ISC 101	Introduction to Occupational Safety & Health	4	0	0	4
BUS 123	Business Finance I	3	0	0	3
BUS 235	Business Management	5	0	0	5
ISC 202	Quality Control	3	2	0	4
DFT 113	Blueprint Interpretation	3	0	0	3
		18	2	0	19
SIXTH QUARTER					
BUS 239	Marketing	5	0	0	5
BUS 124	Business Finance II	3	0	0	3
ISC 203	Motion and Time Study	3	2	0	4
MEC 206	Process Analysis and Estimating	3	4	0	5
		14	6	0	17
SEVENTH QUARTER					
ISC 209	Plant Layout	3	2	0	4
BUS 233	Personnel Management	3	0	0	3
MEC 213	Production Planning	4	0	0	4
	Elective*	3	0	0	3
		13	2	0	14

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C-Class  
L-Lab  
P-Practicum  
QH-Quarter Hours Credit

## MANUFACTURING ENGINEERING TECHNOLOGY T-050

This field is perhaps one of the most promising ones that a student with an interest in science and mechanics may enter in our modern technical world. The demand for trained technicians has exceeded the supply for many years, and every indication is that this situation will continue. This two year program prepares the student for employment as an engineering assistant in such fields as quality control, plant layout, methods and time study, metallurgy, technical sales, and management. Job opportunities exist in industry, civil service, military service, insurance, and the consulting fields.

The Manufacturing Engineering Technology program combines academic courses with laboratory and shop practice. An extensive machine shop, a well equipped material testing laboratory, as well as chemistry and physics laboratories, insure that actual job techniques will be practiced. This is an ECPD accredited curriculum.

### Curriculum by Quarters

Course Title		Hours Per week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
MAT 101	Technical Mathematics I	5	0	0	5
ENG 100	Oral Communication	3	0	0	3
DFT 101	Technical Drafting I	2	0	6	4
MEC 101	Machine Processes I	1	0	6	3
MEC 192	Orientation to Manufacturing Engineering Technology	1	0	0	1
		<u>12</u>	<u>0</u>	<u>12</u>	<u>16</u>
<b>SECOND QUARTER</b>					
MAT 102	Technical Mathematics II	5	0	0	5
ENG 101	Introduction to Written Communication	3	0	0	3
PHY 111	Physics: Mechanics	3	2	0	4
DFT 102	Technical Drafting II	2	0	6	4
MEC 102	Machine Processes II	1	0	6	3
		<u>14</u>	<u>2</u>	<u>12</u>	<u>19</u>
<b>THIRD QUARTER</b>					
MAT 103	Technical Mathematics III	5	0	0	5
ENG 102	Composition	3	0	0	3
MEC 201	Manufacturing Processes I	1	0	6	3
PHY 112	Physics: Materials and Heat	3	2	0	4
		<u>12</u>	<u>2</u>	<u>6</u>	<u>15</u>

Course Title		Hour Per Week			
		C	L	P	QH
<b>FOURTH QUARTER</b>					
MEC 104	Applied Mechanics	5	0	0	5
MEC 235	Fluid Power	3	0	3	4
MAT 160	Engineering Computations	1	0	3	2
CHM 101	Chemistry	4	2	0	5
		13	2	6	16
<b>FIFTH QUARTER</b>					
ELC 205	Applied Electricity	3	2	0	4
MEC 205	Strength of Materials	3	2	0	4
MEC 202	Manufacturing Processes II	2	0	6	4
ECO 102	Economics	3	0	0	3
MEC 210	Ferrous Metallurgy	3	0	3	4
		14	4	9	19
<b>SIXTH QUARTER</b>					
PSY 206	Applied Psychology	3	0	0	3
ISC 202	Quality Control	3	2	0	4
MEC 237	Control Systems	3	2	0	4
ISC 201	Industrial Organization and Management	3	0	0	3
ISC 203	Motion and Time Study	3	2	0	4
		15	6	0	18
<b>SEVENTH QUARTER</b>					
ISC 209	Plant Layout	3	2	0	4
ENG 103	Technical Report Writing	3	0	0	3
MEC 230	Plant Services	3	2	0	4
PLA 101	Introduction to Plastics	2	0	3	3
MEC 203	Welding Processes	2	0	3	3
		13	4	6	17

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



## MARKETING AND RETAILING T-020

Marketing and Retailing is a program which teaches students the techniques of marketing, management, and distribution which are used in many businesses. The program is designed to give the student a chance to learn the theoretical, as well as practical aspects of occupations at the mid-management level. Retailing occupations are those followed by workers engaged in marketing or merchandising activities or in contact with buyers and sellers when (1) distributing to consumers, retailers, jobbers, wholesalers, and others the products of farm and industry or selling services, or (2) managing, operating, or conducting retail, wholesale, or service businesses. Distribution pertains to business and consumer services. Occupations are many and diverse, ranging from stock clerk to the head of a giant distribution-oriented corporation. Thus there are hundreds of entry occupations in this field.

### Curriculum By Quarters

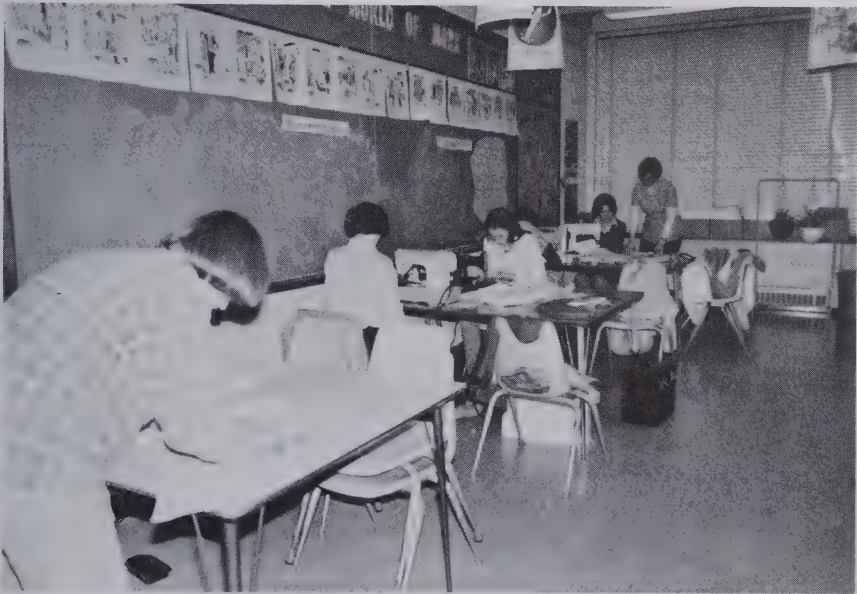
Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
ENG	100	Oral Communication	3	0	0	3
BUS	100	Rapid Calculations	3	0	0	3
BUS	245	Retailing	5	0	0	5
BUS	239	Marketing	5	0	0	5
BUS	102	Typewriting I	2	0	3	3
			18	0	3	19
SECOND QUARTER						
ENG	101	Introduction to Written Communication	3	0	0	3
BUS	120	Accounting I	4	0	3	5
ECO	102	Economics I	3	0	0	3
BUS	232	Sales Development	3	0	0	3
BUS	109	Business Mathematics	5	0	0	5
			18	0	3	19
THIRD QUARTER						
ENG	102	Composition	3	0	0	3
BUS	110	Office Machines I	2	0	3	3
BUS	115	Business Law I	3	0	0	3
ECO	108	Consumer Economics	3	0	0	3
ECO	104	Economics II	3	0	0	3
			14	0	3	15
FOURTH QUARTER						
BUS	249	Marketing/Retailing Seminar	3	0	20	5
PSY	112	Personality Development	3	0	0	3
BUS	116	Business Law II	3	0	0	3
ENG	206	Business Communications	3	0	0	3
			12	0	20	14



Course Title			Hours Per Week			
			C	L	P	QH
FIFTH QUARTER						
BUS	272	Principles of Supervision	3	0	0	3
ENG	205	Business Report Writing	3	0	0	3
EDP	101	Principles of Business Data Processing	3	2	0	4
BUS	243	Advertising	4	0	0	4
			13	2	0	14
SIXTH QUARTER						
BUS	246	Public Relations	3	0	0	3
BUS	242	Display and Design	3	2	0	4
BUS	262	Fashion Merchandising	3	2	0	4
BUS	237	Wholesaling	3	0	0	3
PSY	206	Applied Psychology	3	0	0	3
			15	4	0	17
SEVENTH QUARTER						
BUS	234	Advanced Sales	3	0	0	3
BUS	241	Social Stratification	3	0	0	3
BUS	244	Marketing Research	4	2	0	5
		Elective*	3	0	0	3
			13	2	0	14

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

- C - Class
- L - Lab
- P - Practicum
- QH - Quarter Hours Credit



## MECHANICAL DRAFTING AND DESIGN ENGINEERING TECHNOLOGY T-043

Drafting is the language of industrial production, and draftsmen and designers are the language experts in this field. The technical draftsman is responsible for the design and graphical representation of the processes and materials of production. Individuals employed in this field are expected to use creative imagination in the design of tools, machines and machine parts which will facilitate production of goods. This rapidly expanding field offers opportunities which compare favorably with those in any other technical area.

The Drafting and Design program provides the students with an extensive background in the fundamentals of drafting and an understanding of the application of these principles to the design of machines, tools, dies, fixtures, cams, and gears. The course also provides a knowledge of manufactured products, and valuable information for those interested in selling metal products. Emphasis is placed upon the ability to think and plan, and not merely upon drafting techniques. This is an ECPD accredited curriculum.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
DFT	101	Technical Drafting I	2	0	6	4
MAT	101	Technical Mathematics I	5	0	0	5
MEC	101	Machine Processes I	1	0	6	3
ENG	100	Oral Communication	3	0	0	3
DFT	192	Orientation to Design Drafting	1	0	0	1
			12	0	12	16
SECOND QUARTER						
DFT	102	Technical Drafting II	2	0	6	4
MAT	102	Technical Mathematics II	5	0	0	5
MEC	102	Machine Processes II	1	0	6	3
PHY	111	Physics: Mechanics	3	2	0	4
ENG	101	Introduction to Written Communication	3	0	0	3
			14	2	12	19
THIRD QUARTER						
DFT	103	Technical Drafting III	2	0	6	4
MAT	103	Technical Mathematics III	5	0	0	5
PHY	112	Physics: Materials and Heat	3	2	0	4
ENG	102	Composition	3	0	0	3
MEC	201	Manufacturing Processes I	1	0	6	3
			14	2	12	19

Course Title			Hours Per Week			
			C	L	P	QH
<b>FOURTH QUARTER</b>						
DFT	205	Design Drafting I	2	0	6	4
DFT	260	Dimensioning & Tolerancing	1	0	3	2
MEC	104	Applied Mechanics	5	0	0	5
MEC	210	Ferrous Metallurgy	3	0	3	4
MEC	235	Fluid Power	3	0	3	4
			14	0	15	19
<b>FIFTH QUARTER</b>						
DFT	204	Descriptive Geometry	3	0	3	4
DFT	206	Design Drafting II	2	0	6	4
MEC	205	Strength of Materials	3	2	0	4
ELC	205	Applied Electricity	3	2	0	4
			11	4	9	16
<b>SIXTH QUARTER</b>						
DFT	223	Design Drafting III	3	0	6	5
DFT	211	Mechanisms	3	0	3	4
ENG	103	Technical Report Writing	3	0	0	3
MEC	237	Control Systems	3	2	0	4
			12	2	9	16
<b>SEVENTH QUARTER</b>						
DFT	212	Jig & Fixture Design	3	0	6	5
DFT	224	Product Design	2	0	6	4
PSY	206	Applied Psychology	3	0	0	3
ISC	201	Industrial Organization & Management	3	0	0	3
			11	0	12	15

C - Class  
 L - Lab  
 P - Practicum  
 QH - Quarter Hours Credit



### NUCLEAR MEDICINE TECHNOLOGY T-104

Nuclear Medicine is the discipline concerned with the diagnosis, treatment, and clinical investigation of disease, utilizing internally administered radionuclides and sophisticated electronic detection equipment. It is one of the most useful and rapidly growing branches of modern medicine.

The student learns to perform clinical nuclear medicine procedures and is provided with the background in physics, anatomy, physiology, mathematics, radiobiology, instrumentation, electronics, and radio-pharmacy that is essential to the performance of superior quality work.

North Carolina Baptist Hospital and Forsyth Memorial Hospital will provide the clinical experience for degree requirements.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
BIO	107	Anatomy and Physiology I	3	2	0	4
CHM	103	Chemistry—General and Inorganic	3	2	0	4
ENG	100	Oral Communication	3	0	0	3
MAT	113	Allied Health Mathematics I	3	0	0	3
BIO	115	Medical Terminology I	1	0	0	1
NMT	101	Nuclear Medicine Technology I	1	0	0	1
			14	4	0	16
<b>SECOND QUARTER</b>						
BIO	108	Anatomy and Physiology II	3	2	0	4
ENG	101	Introduction to Written Communication	3	0	0	3
CHM	104	Organic and Biochemistry	3	2	0	4
MAT	114	Allied Health Mathematics II	3	0	0	3
PHY	101	Concepts in Physics	3	0	0	3
BIO	116	Medical Terminology II	1	0	0	1
NMT	102	Nuclear Medicine Technology II	1	0	0	1
			17	4	0	19
<b>THIRD QUARTER</b>						
BIO	169	Fundamentals of Disease Processes	4	0	0	4
PHY	102	Electricity and Electronics	3	0	0	3
PSY	169	Social Psychology of Health and Illness	3	0	0	3
BIO	139	Topographical Anatomy	2	0	0	2
NMT	103	Nuclear Medicine Technology III	2	2	0	3
NUR	3008	Cardiopulmonary Resuscitation (CPR)*	0	0	0	0
			14	2	0	15



Course Title		Hours Per Week			
		C	L	P	QH
FOURTH QUARTER					
MAT 116	Statistics	5	0	0	5
NMT 104	Nuclear Medicine Technology IV	2	2	0	3
NMT 129	Practicum I	0	0	12	4
PHY 103	Modern Physics	2	0	0	2
		9	2	12	14
FIFTH QUARTER					
NMT 116	Nuclear Physics	2	0	0	2
NMT 111	Principles of Nuclear Medicine I	2	0	0	2
NMT 268	Open Lab Practicum I	0	0	6	2
NMT 269	Practicum II	0	6	24	11
		4	6	30	17
SIXTH QUARTER					
NMT 117	Health Physics	1	0	0	1
NMT 221	Principles of Nuclear Medicine II	2	0	0	2
NMT 223	Radiopharmaceuticals I	2	0	0	2
NMT 230	Nuclear Medicine Instrumentation I	3	2	0	4
NMT 273	Open Lab Practicum II	0	0	6	2
NMT 274	Practicum III	0	6	24	11
		8	8	30	22
SEVENTH QUARTER					
NMT 233	Radiopharmaceuticals II	2	0	0	2
NMT 240	Nuclear Medicine Instrumentation II	3	2	0	4
NMT 231	Principles of Nuclear Medicine III	2	0	0	2
NMT 278	Open Lab Practicum III	0	0	6	2
NMT 279	Practicum IV	0	6	24	11
NMT 289	Radiobiology	2	0	0	2
		9	8	30	23
EIGHTH QUARTER					
NMT 241	Principles of Nuclear Medicine IV	2	0	0	2
NMT 257	Principles of In Vitro Nuclear Medicine	4	2	0	5
NMT 283	Open Lab Practicum IV	0	0	6	2
NMT 284	Practicum V	0	6	24	11
NMT 290	Nuclear Medicine Technology Seminar	2	0	0	2
		8	8	30	22

\*The CPR course may be taken any time during the first three quarters. However, current certification must be maintained for the duration of the program.

- C - Class
- L - Lab
- P - Practicum
- QH - Quarter Hours Credit

## ORNAMENTAL HORTICULTURE T-009

The modern emphasis on outdoor living has created a greater interest in the use of ornamental plants in today's beauty-conscious society. The increased awareness of the value of ornamental plants in landscaping by government, industry, and home-owners has produced a greater demand for trained horticulture technicians.

The Ornamental Horticulture program is designed to give students a good understanding of principles, techniques, and skills which are a necessary foundation for the independent, creative thinking essential to success in this field. Successful completion of this program should qualify individuals for employment in supervision of nurseries and plantings, greenhouse operation, work related to processing and distribution, management of garden shops, supervision or maintenance of golf courses and sale of horticulture products.

### Curriculum By Quarters

Course Title	Hours Per Week			
	C	L	P	QH
<b>FIRST QUARTER</b>				
ENG 100 Oral Communication	3	0	0	3
AGR 185 Soil Science and Fertilizer	5	2	0	6
CHM 101 Chemistry	4	2	0	5
AGR 254 Plant Propagation	3	2	0	4
	15	6	0	18
<b>SECOND QUARTER</b>				
ENG 101 Introduction to Written Communication	3	0	0	3
AGR 170 Plant Science	4	2	0	5
AGR 151 Plant Materials I	3	4	0	5
BUS 102 Typewriting I	2	0	3	3
	12	6	3	16
<b>THIRD QUARTER</b>				
ENG 102 Composition	3	0	0	3
AGR 140 Home Maintenance	2	4	0	4
AGR 152 Plant Materials II	3	4	0	5
AGR 201 Agricultural Chemicals	3	0	0	3
AGR 150 House Plants	3	0	0	3
	14	8	0	18
<b>FOURTH QUARTER</b>				
AGR 258 Turf Practices	3	4	0	5
AGR 256 Nursery Management I	2	4	0	4
AGR 251 Landscape Gardening I	3	4	0	5
ENG 103 Technical Report Writing	3	0	0	3
	11	12	0	17

Course Title		Hours Per Week			
		C	L	P	QH
FIFTH QUARTER					
AGR 257	Nursery Management II	2	4	0	4
AGR 252	Landscape Gardening II	3	4	0	5
BUS 109	Business Mathematics	5	0	0	5
AGR 259	Garden Center Management	1	2	0	2
		11	10	0	16
SIXTH QUARTER					
AGR 200	Practicum	0	0	30	3
AGR 210	Field Analysis	5	0	0	5
AGR 220	Vegetable and Flower Gardening	4	0	0	4
		9	0	30	12
SEVENTH QUARTER					
AGR 153	Greenhouse Management	3	2	0	4
AGR 145	Entomology and Pathology	3	4	0	5
AGR 240	Landscape Construction	4	2	0	5
BUS 235	Business Management	5	0	0	5
		15	8	0	19

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



## POLICE SCIENCE TECHNOLOGY T-064

Police agencies today are moving toward a professional status and law enforcement techniques have evolved from simple jobs requiring minimal qualifications to highly complex activities requiring a great capacity for highly specialized knowledge.

Police officers, both men and women, are charged with the responsibility of protecting life and property. Their responsibilities include preserving the peace, preventing criminal acts, enforcing the law, and apprehending the offenders.

Many opportunities are available for qualified individuals to enter police work. However, future opportunities may be determined to a greater degree by technological and scientific changes in the ever widening scope of law enforcement services.

The Police Science Technology program is designed to instruct the student in current law enforcement methods and in the behavioral sciences. It also provides a firm base of general education, including biology, mathematics, and language skills in developing proficiency in leadership necessary for employment at the operational or management level.

### Curriculum By Quarters

Course Title			Hours	Per Week		
			C	L	P	QH
FIRST QUARTER						
ENG	100	Oral Communications	3	0	0	3
PSC	101	Introduction to Law Enforcement	5	0	0	5
PSC	102	Criminology	5	0	0	5
SOC	102	Principles of Sociology	5	0	0	5
			<u>18</u>	<u>0</u>	<u>0</u>	<u>18</u>
SECOND QUARTER						
ENG	101	Introduction to Written Communications	3	0	0	3
POL	102	Government—National	5	0	0	5
PSC	220	Police Organization and Administration	5	0	0	5
SOC	209	Social Problems	3	0	0	3
			<u>16</u>	<u>0</u>	<u>0</u>	<u>16</u>
THIRD QUARTER						
ENG	102	Composition	3	0	0	3
POL	103	Government—State	5	0	0	5
PSC	120	Administration of Justice	4	0	0	4
BIO	101	General Biology I	3	2	0	4
			<u>15</u>	<u>2</u>	<u>0</u>	<u>16</u>



Course Title				Hours Per Week			
				C	L	P	QH
FOURTH QUARTER							
PSC	121	Police Science Seminar and Practicum		3	0	10	4
PSC	110	Police Role in Crime and Delinquency		5	0	0	5
BIO	102	General Biology II		3	2	0	4
				11	2	10	13
FIFTH QUARTER							
PSY	102	General Psychology		5	0	0	5
MAT	115	Fundamental Concepts of Mathematics		3	0	0	3
PSC	115	Criminal Law I		5	0	0	5
PHI	101	Philosophy		3	0	0	3
				16	0	0	16
SIXTH QUARTER							
ENG	103	Technical Report Writing		3	0	0	3
PSC	116	Criminal Law II		5	0	0	5
PSC	210	Criminalistics I		3	2	0	4
SOC	210	Minorities in American Society		3	0	0	3
				14	2	0	15
SEVENTH QUARTER							
ENG	115	Appreciation of Literature		3	0	0	3
PSY	108	Abnormal Psychology		5	0	0	5
PSC	211	Criminalistics II		3	2	0	4
MAT	116	Fundamental Concepts of Statistics		5	0	0	5
				16	2	0	17

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



### RADIOLOGIC TECHNOLOGY T-061

Radiologic Technology entails the use of x-ray and other forms of ionizing radiation for diagnosis and treatment of injury and disease.

The student becomes proficient in the operation of radiographic equipment and gains a thorough knowledge of accessories and photographic principles to produce high quality radiographs. Emphasis is placed upon the positioning of various body parts, technical factors to minimize radiation exposure, pathological conditions, and specialized procedures employed for diagnosis. There is detailed analysis of radiographs for proper positioning, anatomical structure visualization, the use of appropriate accessories and technical exposure factors.

This knowledge is applied as a planned learning experience under the supervision of staff technologists and clinical instructors at North Carolina Baptist Hospital and Forsyth Memorial Hospital.

After satisfactory completion of the program, the student is eligible for examination by the American Registry of Radiologic Technologists.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
BIO	107	Anatomy and Physiology I	3	2	0	4
CHM	103	Chemistry - General and Inorganic	3	2	0	4
ENG	100	Oral Communication	3	0	0	3
MAT	113	Allied Health Mathematics I	3	0	0	3
BIO	115	Medical Terminology I	1	0	0	1
			13	4	0	15
<b>SECOND QUARTER</b>						
BIO	108	Anatomy and Physiology II	3	2	0	4
ENG	101	Introduction to Written Communication	3	0	0	3
MAT	114	Allied Health Mathematics II	3	0	0	3
BIO	116	Medical Terminology II	1	0	0	1
CHM	104	Organic and Biochemistry	3	2	0	4
RDT	113	Departmental Orientation and Ethics and Elementary Radiation Protection	1	0	3	2
			14	4	3	17

**Course Title****Hours Per Week****C L P QH****THIRD QUARTER**

BIO 169	Fundamentals of Disease Processes	4	0	0	4
PSY 169	Social Psychology of Health and Illness	3	0	0	3
BIO 139	Topographical Anatomy	2	0	0	2
HEA 116	Fundamentals of Patient Care	2	0	0	2
RDT 114	Basic Essentials of Radiologic Technology	2	0	6	4
PHY 101	Concepts in Physics	3	0	0	3
		16	0	6	18

**FOURTH QUARTER**

NUR 3008	Cardiopulmonary Resuscitation (CPR)*	0	0	0	0
RDT 139	Positioning and Related Anatomy I	3	0	0	3
RDT 125	Radiographic Darkroom	2	0	0	2
RDT 137	Radiographic Technique I	3	0	0	3
RDT 116	Radiographic Terminology	1	0	0	1
RDT 138	Practicum I	0	6	24	11
RDT 161	Open Lab Practicum I	0	0	6	2
		9	6	30	22

**FIFTH QUARTER**

RDT 289	Film Critique I	1	0	0	1
RDT 260	Pediatric Radiography	1	0	0	1
RDT 259	Positioning and Related Anatomy II	3	0	0	3
RDT 238	Practicum II	0	6	24	11
RDT 216	Radiation Physics	3	0	0	3
RDT 237	Radiographic Technique II	3	0	0	3
RDT 262	Open Lab Practicum II	0	0	6	2
		11	6	30	24

**SIXTH QUARTER**

RDT 280	Dental Radiography	1	0	0	1
RDT 290	Film Critique II	2	0	0	2
RDT 220	Operating Room Radiography	1	0	0	1
RDT 269	Positioning and Related Anatomy III	3	0	0	3
RDT 249	Radiation Protection	1	0	0	1
RDT 275	TV and Monitor Systems	1	0	0	1
RDT 263	Open Lab Practicum III	0	0	6	2
RDT 248	Practicum III	0	6	24	11
		9	6	30	22

**SEVENTH QUARTER**

RDT 276	Equipment Maintenance	1	0	0	1
RDT 291	Film Critique III	2	0	0	2
RDT 204	Nuclear Medicine	2	0	0	2
RDT 258	Practicum IV	0	6	24	11
RDT 283	Radiographic Pathology	2	0	0	2
RDT 233	Seminar I	1	0	0	1
RDT 250	Special Procedures I	2	0	0	2
RDT 264	Open Lab Practicum IV	0	0	6	2
		10	6	30	23

**EIGHTH QUARTER**

RDT 257	Departmental Administration	1	0	0	1
RDT 292	Film Critique IV	2	0	0	2
RDT 268	Practicum V	0	6	24	11
RDT 281	Radiation Therapy	2	0	0	2
RDT 234	Seminar II	1	0	0	1
RDT 252	Special Procedures II	2	0	0	2
RDT 265	Open Lab Practicum V	0	0	6	2
RDT 266	Clinical Internship**	0	0	15	2
		8	6	45	23

\*CPR required for graduation. The CPR course may be taken any time during the first four quarters. However, current certification must be maintained for the duration of the program.

\*\*This is a special course that will be taken for the three (3) weeks following the end of the Eighth Quarter. Students will register for the course during the regular Eighth Quarter Registration.

C - Class

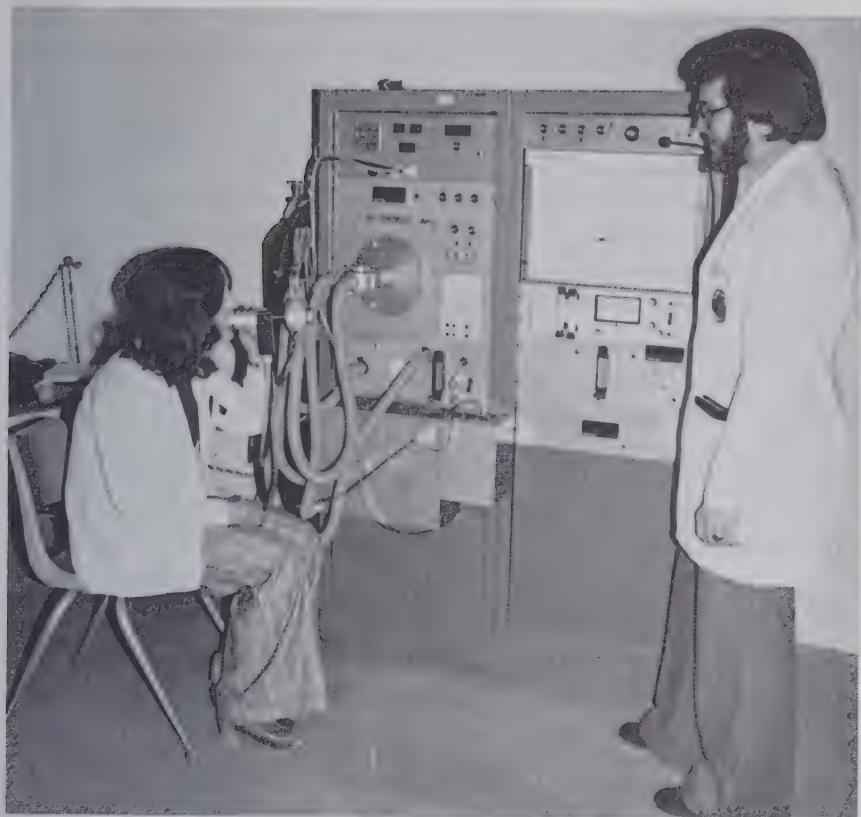
L - Lab

P - Practicum

QH - Quarter Hours Credit







## REAL ESTATE T-127

Real estate, a major business activity in North Carolina, is much broader and more complex than is commonly realized.

The field of real estate involves helping people find satisfactory homes and helping industry find profitable locations; it includes the planning and developing necessary to make the highest and best use of land and buildings. Other aspects of the industry include the appraising and the managing of real property and finding capital for construction and rehabilitation.

The man or woman entering the real estate industry will be involved in rendering a wide variety of fundamental services to meet the growing housing demands of business and industry. Trained men and women are needed to assist in locating families, locating factories and offices, financing real estate transactions, managing commercial buildings and multiple dwellings, and appraising real property. The real estate industry offers an opportunity for personal achievement as well as the satisfaction of doing work of the highest importance in the community.

### Curriculum By Quarters

Course Title			Hours	Per	Week	
			C	L	P	QH
FIRST QUARTER						
ENG	101	Introduction to Written Communication	3	0	0	3
BUS	162	Fundamentals of Real Estate I	3	0	0	3
BUS	101	Introduction to Business	5	0	0	5
BUS	109	Business Mathematics	5	0	0	5
			16	0	0	16
SECOND QUARTER						
ENG	102	Composition	3	0	0	3
BUS	163	Fundamentals of Real Estate II	3	0	0	3
ECO	102	Economics I	3	0	0	3
BUS	120	Accounting I	4	0	3	5
			13	0	3	14
THIRD QUARTER						
ENG	100	Oral Communication	3	0	0	3
ECO	104	Economics II	3	0	0	3
BUS	121	Accounting II	4	0	3	5
CIV	105	Architectural Materials and Methods I	3	2	0	4
			13	2	3	15
FOURTH QUARTER						
BUS	239	Marketing	5	0	0	5
BUS	164	Real Estate Law	5	0	0	5
BUS	292	Appraisal I	3	0	0	3
		Elective*	3	0	0	3
			16	0	0	16

**Course Title****Hours Per Week****C L P QH****FIFTH QUARTER**

BUS 293	Appraisal II	3	2	0	4
BUS 209	Real Estate Finance	5	0	0	5
PSY 206	Applied Psychology	3	0	0	3
BUS 216	Real Estate Sales	3	0	0	3
	Elective*	3	0	0	3
		17	2	0	18

**SIXTH QUARTER**

ENG 206	Business Communications	3	0	0	3
BUS 294	Appraisal III	3	2	0	4
BUS 296	Property Management	3	0	0	3
BUS 228	Real Estate Investment and Taxation	3	0	0	3
BUS 247	Business Insurance	3	0	0	3
		15	2	0	16

**SEVENTH QUARTER**

BUS 236	Land Development	3	2	0	4
BUS 231	Real Estate Merchandising	3	0	0	3
BUS 238	Land Use Policy & Governmental Influence on Real Estate	3	2	0	4
BUS 235	Business Management	5	0	0	5
		14	4	0	16

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit



## RESPIRATORY THERAPY TECHNOLOGY T-091

Respiratory therapy is an allied health specialty employed with medical direction in the treatment, management, control, evaluation and care of patients with deficiencies and abnormalities with the cardiopulmonary system.

The student will learn how to properly administer the following therapy: medical gases and administration apparatus, environmental control systems, humidification, aerosols, medications, ventilatory support, broncho-pulmonary drainage, pulmonary rehabilitation, cardio-pulmonary resuscitation and airway management.

The student will learn specific testing techniques to assist in diagnosis, monitoring, treatment and research. These will include measurement of ventilatory volumes, pressures, flows, blood gas analysis and other related physiologic monitoring.

North Carolina Baptist Hospital and Forsyth Memorial Hospital provide the clinical experience for degree requirements.

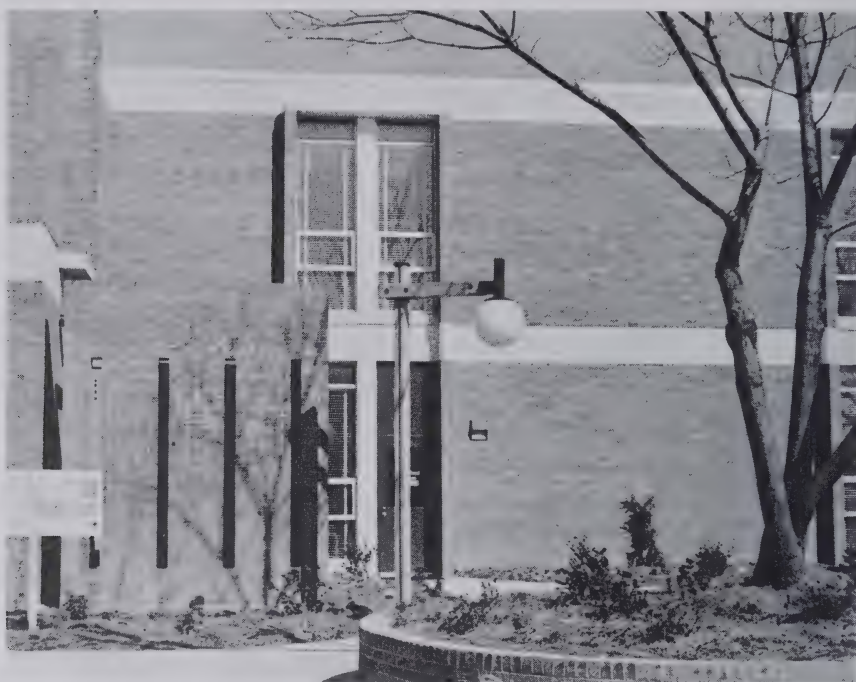
### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
BIO 107	Anatomy and Physiology I		3	2	0	4
CHM 103	Chemistry—General and Organic		3	2	0	4
ENG 100	Oral Communication		3	0	0	3
MAT 113	Allied Health Mathematics I		3	0	0	3
BIO 115	Medical Terminology I		1	0	0	1
RTH 101	Respiratory Therapy Orientation		0	2	0	1
			13	6	0	16
<b>SECOND QUARTER</b>						
BIO 108	Anatomy and Physiology II		3	2	0	4
ENG 101	Introduction to Written Communication		3	0	0	3
MAT 114	Allied Health Mathematics II		3	0	0	3
BIO 116	Medical Terminology II		1	0	0	1
PHY 101	Concepts in Physics		3	0	0	3
CHM 104	Organic and Biochemistry		3	2	0	4
			16	4	0	18
<b>THIRD QUARTER</b>						
PHY 102	Electricity and Electronics		3	0	0	3
HEA 116	Fundamentals of Patient Care		2	0	0	2
PSY 169	Social Psychology of Health and Illness		3	0	0	3
HEA 149	General Pharmacology		3	0	0	3
BIO 111	Microbiology		3	2	0	4
RTH 139	Cardiopulmonary Anatomy and Physiology		2	0	0	2
			16	2	0	17

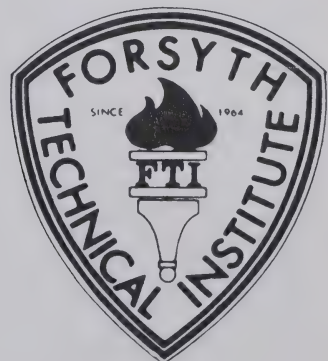


Course Title			Hours Per Week			
			C	L	P	QH
FOURTH QUARTER						
RTH	111	Practicum I	1	0	15	6
RTH	105	Respiratory Therapy Theories and Principles	4	2	0	5
PHY	104	Fluid Mechanics	2	0	0	2
BIO	112	Pathology	3	0	0	3
RTH	287	Respiratory Therapy Pharmacology	1	0	0	1
			11	2	15	17
FIFTH QUARTER						
RTH	205	Obstructive and Restrictive Pulmonary Diseases	2	2	0	3
RTH	225	Library Research I	2	0	0	2
RTH	218	Practicum II	1	0	15	6
RTH	269	Cardiopulmonary Pathophysiology	4	0	0	4
			9	2	15	15
SIXTH QUARTER						
RTH	233	Chest Physiotherapy	1	2	0	2
RTH	250	Intensive Respiratory Care	3	0	0	3
RTH	215	Ventilators	2	2	0	3
RTH	235	Library Research II	2	0	0	2
RTH	228	Practicum III	0	0	18	6
RTH	268	Pulmonary Function	3	0	0	3
			11	4	18	19
SEVENTH QUARTER						
RTH	263	Advanced Respiratory Therapy Techniques and Theories	2	2	0	3
RTH	241	Respiratory Therapy Department Operations	2	0	0	2
RTH	245	Library Research III	2	0	0	2
RTH	211	Pediatrics	2	0	0	2
RTH	208	Emergency Medicine and Resuscitation	2	2	0	3
RTH	238	Practicum IV	0	0	18	6
			10	4	18	18
EIGHTH QUARTER						
RTH	294	Advanced Respiratory Care	2	0	0	2
RTH	248	Practicum V	0	6	30	13
RTH	257	Respiratory and Hemodynamic Monitoring Techniques	3	0	0	3
			5	6	30	18

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit



**PRE-TECHNICAL PROGRAM**



### PRE-TECHNICAL PROGRAM T-099

This program is a full-time course of study which offers preparation, remediation, and guidance for students who, for a variety of reasons, do not meet the specific entrance requirements for the regular curriculum program of their choice. Students who do meet the minimum entrance requirements but whose previous academic records indicate that they may have difficulty in successfully completing their programs are also advised to enter the Pre-Technical program.

The student's academic program will be individually designed to meet his specific preparatory and remedial needs. The courses will be selected from the Pre-Technical offerings and from technical and/or vocational credit courses.

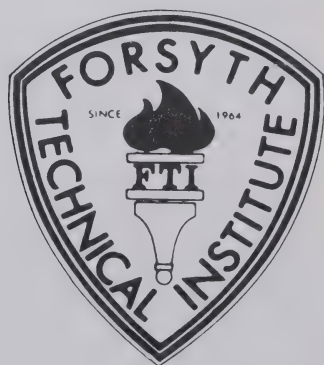
### PRE-TECHNICAL COURSE OFFERINGS

Course Title	C	L	P	QH*
BIO 010 Human Anatomy	3	0	0	0(3)
BUS 010 Pre-Technical Accounting	5	0	0	0(5)
BUS 030 Introduction to Shorthand	5	0	0	0(5)
CHM 010 Pre-Technical Chemistry	3	2	0	0(4)
ENG 001 Spelling	3	0	0	0(3)
ENG 005 Language Development I	2	2	0	0(3)
ENG 006 Language Development II	2	2	0	0(3)
ENG 007 Language Development III	2	2	0	0(3)
ENG 008 Language Development IV	2	2	0	0(3)
ENG 010 Individualized English	5	0	0	0(5)
ENG 021 Basic Reading Skills and Vocabulary I	3	0	0	0(3)
ENG 022 Basic Reading Skills and Vocabulary II	3	0	0	0(3)
MAT 001 Structure of Arithmetic	5	0	0	0(5)
MAT 002 Pre-Business Mathematics	5	0	0	0(5)
MAT 003 Algebra	5	0	0	0(5)
MAT 004 Pre-Technical Mathematics	5	0	0	0(5)
MAT 005 Geometry	5	0	0	0(5)
MAT 020 Mathematics for Health Education	3	0	0	0(3)
NUT 001 Basic Nutrition	3	0	0	0(3)
PHY 001 Pre-Technical Physics	3	2	0	0(4)
SOC 010 Study Skills	3	0	0	0(3)
SOC 100 Sociology I	0	4	0	2
SOC 101 Sociology II	0	4	0	2

\*Equivalent credit hours shown in parenthesis.



# DIPLOMA PROGRAMS



## AIR CONDITIONING, REFRIGERATION AND HEATING V-024

During 1972, statewide licensing became mandatory for all installation and major servicing of domestic central heating and cooling systems. In cities of 10,000 population and over, a state license is now required for installers of most commercial refrigeration equipment. These and other stricter regulations are dramatic proof of the expanding activity and complexity in this field. It is reasonable to conclude, therefore, that a licensed service man is commanding higher pay and better opportunity compared to an unlicensed worker. This program, besides preparing a graduate to take the state board examinations, enables him to find immediate employment in a wide choice of jobs, which include apartment maintenance, industrial maintenance, commercial refrigeration, domestic appliances and servicing, sales engineering, self-employment and—thanks to the growing number of cars with factory-installed air conditioners—the automotive field.

### Curriculum By Quarters

Course Title	Hours Per Week			
	C	L	P	QH
<b>FIRST QUARTER</b>				
AHR 1102 Fundamentals of Refrigeration	7	0	9	10
WLD 1111 Air Conditioning Welding	1	0	3	2
MAT 1102 Algebra	5	0	0	5
PHY 1103 Fundamentals of Electricity	3	2	0	4
	16	2	12	21
<b>SECOND QUARTER</b>				
AHR 1103 Domestic and Commercial Refrigeration	6	0	12	10
ELC 1111 Applied Electricity	3	2	0	4
DFT 1107 Blueprint Reading—Air Conditioning	1	0	3	2
ENG 1101 Communications I	3	0	0	3
	13	2	15	19
<b>THIRD QUARTER</b>				
AHR 1104 Air Conditioning Controls I	5	0	3	6
AHR 1105 Principles of Air Conditioning	5	0	9	8
ENG 1112 Communications II	3	0	0	3
PHY 1116 Solar Energy Conversion Systems	3	2	0	4
	16	2	12	21
<b>FOURTH QUARTER</b>				
AHR 1106 Air Conditioning Controls II	3	0	0	3
HET 1101 Heating Systems	6	0	15	11
PSY 1101 Human Relations	3	0	0	3
BUS 1103 Small Business Operations	3	0	0	3
	15	0	15	20

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

## AUTOMOTIVE BODY REPAIR V-001

Graduates of this program are qualified for jobs in which they remove dents in car and truck bodies and fenders; remove and replace various sheet metal parts; straighten frames, doors, hoods, and deck lids; operate four kinds of welding equipment; shrink stretched metal and prepare it for painting; paint fenders and panels as well as a complete vehicle, with any of a number of paints and thinners. At the same time, the student is taught to interpret blueprints, charts, service manuals and wiring diagrams, and to prepare repair orders and make estimates and statements for adjusters. Much of the student's time in the shop is spent learning skills and practicing them under circumstances that closely match those met on the job. After gaining experience, many graduates open their own businesses or become body shop foremen, supervisors, or managers.

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
AUT	1111 Automotive Body Repair I	3	0	12	7
MAT	1101 Fundamentals of Mathematics	5	0	0	5
ENG	1101 Communications I	3	0	0	3
WLD	1130 Applied Basic Arc and Gas Welding	1	0	6	3
		<u>12</u>	<u>0</u>	<u>18</u>	<u>18</u>
<b>SECOND QUARTER</b>					
AUT	1112 Automotive Body Repair II	3	0	15	8
WLD	1102 Applied Metal Preparation and Welding	1	0	3	2
PHY	1101 Applied Science I	3	2	0	4
ENG	1112 Communications II	3	0	0	3
		<u>10</u>	<u>2</u>	<u>18</u>	<u>17</u>
<b>THIRD QUARTER</b>					
AUT	1113 Metal Finishing and Painting	2	0	12	6
PSY	1101 Human Relations	3	0	0	3
WLD	1131 Applied Inert Gas Welding	2	0	3	3
AUT	1114 Frame Straightening and Alignment	2	0	6	4
		<u>9</u>	<u>0</u>	<u>21</u>	<u>16</u>
<b>FOURTH QUARTER</b>					
BUS	1103 Small Business Operations	3	0	0	3
DFT	1101 Schematics and Diagrams	0	0	3	1
AUT	1116 Auto And Truck Painting	3	0	21	10
		<u>6</u>	<u>0</u>	<u>24</u>	<u>14</u>

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

## AUTOMOTIVE MECHANICS V-003

The Automotive Mechanics curriculum is designed to take the student without any automotive experience and teach him the many skills used in servicing and repairing automobiles. He is taught, in each phase of the auto program, the construction, purpose and detail operation of each component so that he will have a better understanding of how to service and repair these components. He is also taught the operation of equipment that he will use in the service field. By using automobiles and proper equipment, the student deals with the actual problems he will encounter when servicing automobiles for the public.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
PME	1101	Internal Combustion Engines	4	0	15	9
PME	1103	Automobile Fuel Systems	1	0	3	2
BUS	1103	Small Business Operations	3	0	0	3
MAT	1101	Fundamentals of Mathematics	5	0	0	5
			13	0	18	19
SECOND QUARTER						
AUT	1123	Automotive Chassis and Suspension Systems	4	0	15	9
WLD	1101	Basic Gas Welding	1	0	3	2
ENG	1101	Communications I	3	0	0	3
PHY	1101	Applied Science I	3	2	0	4
			11	2	18	18
THIRD QUARTER						
PME	1102	Automotive Electrical Systems	4	0	15	9
AHR	1101	Automotive Air Conditioning	2	0	3	3
ENG	1112	Communications II	3	0	0	3
MEC	1112	Machine Shop Processes	1	0	3	2
			10	0	21	17
FOURTH QUARTER						
AUT	1124	Automotive Power Trains	3	0	9	6
AUT	1125	Automotive Servicing	3	0	9	6
PSY	1101	Human Relations	3	0	0	3
DFT	1101	Schematics and Diagrams	0	0	3	1
			9	0	21	16

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit



## BUILDING TRADES DRAFTING V-015

This program prepares individuals to do drafting for the building industry. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. Emphasis is on gaining experience with actual problems rather than hypothetical ones. The building trades draftsman performs the general duties of a draftsman and specializes in organizing and making detail and working drawings of structures and mechanical equipment from preliminary sketches of the designer. He uses knowledge of various machines, engineering practices, building materials, and other physical sciences to complete the drawings.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
DFT	1121	Drafting I	4	0	12	8
MAT	1102	Algebra	5	0	0	5
PHY	1101	Applied Science I	3	2	0	4
DFT	1144	Building Materials and Methods	3	0	0	3
			15	2	12	20
SECOND QUARTER						
DFT	1122	Drafting II	4	0	12	8
DFT	1125	Descriptive Geometry	2	0	3	3
ENG	1101	Communications I	3	0	0	3
MAT	1103	Geometry	3	0	0	3
			12	0	15	17
THIRD QUARTER						
DFT	1141	Drafting III	4	0	15	9
DFT	1143	Building Mechanical Equipment	3	0	0	3
MAT	1104	Trigonometry	3	0	0	3
PHY	1116	Solar Energy Conversion Systems	3	2	0	4
			13	2	15	19
FOURTH QUARTER						
DFT	1142	Drafting IV	4	0	15	9
DFT	1150	Site Planning	2	0	3	3
ENG	1112	Communications II	3	0	0	3
BUS	1103	Small Business Operations	3	0	0	3
			12	0	18	18

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

## CARPENTRY V-007

Carpentry is one of the basic trades in the construction industry. Using hand and power tools, carpenters construct, erect, install and repair structures of wood, plywood, wallboard, and other materials. Students are taught to read blueprints of actual house plans, to work on foundations and footings, and to do interior framing, exterior trim, and roofing. Examples of specialization are layout carpenter, framing carpenter, concrete form carpenter, scaffolding carpenter, acoustical and insulating carpenter, and finish carpenter. For every hour in the classroom, the student spends about three hours developing shop skills and working on off campus projects.

### Curriculum By Quarters

Course Title				Hours Per Week			
				C	L	P	QH
<b>FIRST QUARTER</b>							
CAR	1101	Framing, Sheathing and Insulating I		2	0	18	8
MAT	1113	Carpenter's Mathematics and Estimating		5	0	0	5
DFT	1110	Blueprint Reading I		0	0	3	1
ENG	1101	Communications I		3	0	0	3
				10	0	21	17
<b>SECOND QUARTER</b>							
CAR	1102	Framing, Sheathing, and Insulation II		3	0	18	9
MAT	1114	Carpenter's Mathematics and Estimating		3	0	0	3
DFT	1111	Blueprint Reading II		0	0	3	1
PSY	1101	Human Relations		3	0	0	3
				9	0	21	16
<b>THIRD QUARTER</b>							
CAR	1103	Interior and Exterior Trim		3	0	21	10
CAR	1114	Building Codes		3	0	0	3
BUS	1103	Small Business Operations		3	0	0	3
				9	0	21	16
<b>FOURTH QUARTER</b>							
CAR	1105	Finish Work		6	0	21	13
ENG	1112	Communications II		3	0	0	3
				9	0	21	16

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

## DIESEL TRUCK MAINTENANCE AND REPAIR V-013

The diesel mechanics keep bulldozers, tractors, trucks and other diesel-powered equipment in top running order for farms and industry. Most diesel mechanics specialize in one of these kinds of diesel equipment.

The program at Forsyth Technical Institute trains students to enter the maintenance division of the trucking industry, and the scope and nature of shop work offered match closely that of the trucking industry itself. The repair and maintenance of late-model trucks and component parts obtained from industry assure the students of learning his craft on equipment similar to what he will encounter upon graduation, and his working with hand tools and reconditioning and testing equipment currently used in the trucking industry further eases his transition from instruction to industry.

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
DSL	1101 Diesel Engines	4	0	15	9
WLD	1101 Basic Gas Welding	1	0	3	2
PHY	1101 Applied Science I	3	2	0	4
ENG	1101 Communications I	3	0	0	3
		<u>11</u>	<u>2</u>	<u>18</u>	<u>18</u>
<b>SECOND QUARTER</b>					
DSL	1102 Diesel Electrical and Fuel Systems	4	0	15	9
AHR	1101 Automotive Air Conditioning	2	0	3	3
MAT	1101 Fundamentals of Mathematics	5	0	0	5
DFT	1101 Schematics and Diagrams	0	0	3	1
		<u>11</u>	<u>0</u>	<u>21</u>	<u>18</u>
<b>THIRD QUARTER</b>					
DSL	1103 Diesel Fuel Injection	2	0	6	4
DSL	1104 Power Trains, Chassis & Suspension Systems	4	0	15	9
ENG	1112 Communications II	3	0	0	3
		<u>9</u>	<u>0</u>	<u>21</u>	<u>16</u>
<b>FOURTH QUARTER</b>					
DSL	1105 Diesel Servicing	5	0	15	10
MEC	1120 Machine Processes	1	0	6	3
BUS	1103 Small Business Operations	3	0	0	3
		<u>9</u>	<u>0</u>	<u>21</u>	<u>16</u>

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

## ELECTRICAL INSTALLATION V-018

The rapid development and increased use of new products, together with the expanding economy, are demanding more and better qualified workers to install and maintain electrical equipment. Through classroom, shop, laboratory instruction and experience, a student learns the basics of motor and motor control systems, industrial electronic control systems, business procedures, and communications skills; and he will understand the National Electrical Code as it relates to wiring, electrical circuits, and the measurements of voltage, current, power and power factor of single and polyphase alternating circuits. Persons entering this program should have a strong mathematics background, including at least one year of algebra.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
ELC	1121	Electrical Installation Fundamentals	5	0	15	10
PHY	1103	Fundamentals of Electricity	3	2	0	4
MAT	1101	Fundamentals of Mathematics	5	0	0	5
			<u>13</u>	<u>2</u>	<u>15</u>	<u>19</u>
<b>SECOND QUARTER</b>						
ELC	1122	Residential Wiring I	4	0	15	9
DFT	1110	Blueprint Reading: Building Trades	0	0	3	1
PHY	1102	Applied Science II	3	2	0	4
ENG	1101	Communications I	3	0	0	3
			<u>10</u>	<u>2</u>	<u>18</u>	<u>17</u>
<b>THIRD QUARTER</b>						
ELC	1123	Residential Wiring II	5	0	15	10
PSY	1101	Human Relations	3	0	0	3
DFT	1113	Blueprint Reading: Electrical	0	0	3	1
ENG	1112	Communications II	3	0	0	3
			<u>11</u>	<u>0</u>	<u>18</u>	<u>17</u>
<b>FOURTH QUARTER</b>						
ELC	1125	Commercial and Industrial Wiring	6	0	15	11
BUS	1103	Small Business Operations	3	0	0	3
ELN	1118	Industrial Electronics	3	0	3	4
			<u>12</u>	<u>0</u>	<u>18</u>	<u>18</u>

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit



## ELECTRONIC SERVICING V-042

Lest anyone overlook the importance of television servicing, let him answer only two questions: How many people have and use television receivers? And how many people who have and use television receivers can repair one when it needs repairing? In the difference between these two numbers lies the opportunity in entering television servicing. The television repair program includes instruction in the basic knowledge and skills required to install, maintain and service television receivers. Laboratory work in circuitry, schematic diagrams and troubleshooting supplements classroom instruction and demonstration. During the final quarter, intensive work in servicing color television sets reflects their growing popularity. This is an approved C.E.T. course.

### Curriculum By Quarters

Course Title	Hours Per Week			
	C	L	P	QH
<b>FIRST QUARTER</b>				
ELC 1120 Direct and Alternating Current	8	8	6	14
MAT 1115 Elements of Mathematics	5	0	0	5
ENG 1101 Communications I	3	0	0	3
	16	8	6	22
<b>SECOND QUARTER</b>				
ELN 1121 Vacuum Tubes and Circuits	4	4	3	7
ELN 1122 Transistor Theory and Circuits	6	4	6	10
ENG 1112 Communications II	3	0	0	3
	13	8	9	20
<b>THIRD QUARTER</b>				
ELN 1123 Black and White Television Servicing	10	6	9	16
PHY 1104 Applied Science: Light and Sound	3	2	0	4
	13	8	9	20
<b>FOURTH QUARTER</b>				
ELN 1124 Color Television Servicing	10	8	9	17
BUS 1103 Small Business Operations	3	0	0	3
	13	8	9	20

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

## GRAPHIC ARTS/PRINTING V-022

Printing is the second largest industry in the United States in terms of the number of existing establishments.

Printing is carried on everywhere; all over the world. Wherever there is civilization, there is printing. The printer can be employed on a weekly newspaper in a small town, or he can work in one of the huge plants in larger cities.

Working conditions are, as a rule, good. Work, especially on the newspapers, is steady and there are no seasonal layoffs as there are in some other industries.

This curriculum is designed to give students experience in a cluster of activities representing basic areas of the graphic arts industry. The range of experiences is sufficient to enable students to understand a variety of graphic arts processes and to develop skills enabling them to perform these processes with a high degree of efficiency. The print shop is large and well lighted, and the equipment is the most modern which can be obtained.

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
PRN	1131 Introduction to Printing	6	0	12	10
MAT	1150 Printer's Mathematics	5	0	0	5
PRN	1101 Printer's English	3	0	0	3
BUS	1122 Typing I	2	0	3	3
		16	0	15	21
<b>SECOND QUARTER</b>					
PRN	1132 Offset Printing I	4	0	12	8
PHY	1114 Science for Printers	3	2	0	4
PRN	1134 Composition	3	0	6	5
		10	2	18	17
<b>THIRD QUARTER</b>					
PRN	1133 Offset Printing II	6	0	15	11
PRN	1135 Composition II	3	0	3	4
ENG	1101 Communications I	3	0	0	3
		12	0	18	18
<b>FOURTH QUARTER</b>					
PRN	1137 Printing Project	0	0	21	7
BUS	1103 Small Business Operations	3	0	0	3
ENG	1112 Communications II	3	0	0	3
PRN	1136 Estimating	5	0	0	5
		11	0	21	18

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

MACHINIST V-032

If there is any one worker indispensable to manufacturing, it is probably the machinist; for it is he who forms into steel the idea on the engineer's blueprint. The grinding, milling, and turning of these complex parts require rare skill, and most employers want to hire only the well trained. The machinist program is both broad and detailed—broad enough to permit the graduate to fill a number of jobs in a company's machine shop, detailed enough to ensure that he understands the work fully. The demand for machinists is much greater than the supply. For the person who likes to work with his hands, where precision rules, who delights in fashioning from formless metal an engine piston, a missile part, or perhaps a surgical tool, the machinist field offers satisfaction and challenge.

Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
FIRST QUARTER					
MEC 1101	Machine Shop Theory and Practice I	3	0	12	7
MAT 1101	Fundamentals of Mathematics	5	0	0	5
DFT 1104	Blueprint Reading: Mechanical I	0	0	3	1
WLD 1101	Basic Gas Welding	1	0	3	2
BUS 1103	Small Business Operations	3	0	0	3
		12	0	18	18
SECOND QUARTER					
MEC 1102	Machine Shop Theory and Practice II	3	0	12	7
MAT 1102	Algebra	5	0	0	5
DFT 1105	Blueprint Reading: Mechanical II	0	0	3	1
ENG 1101	Communications I	3	0	0	3
MEC 1115	Treatment of Ferrous Metals	2	0	3	3
		13	0	18	19
THIRD QUARTER					
MEC 1103	Machine Shop Theory and Practice III	4	0	12	7
DFT 1106	Blueprint Reading: Mechanical III	0	0	3	1
MAT 1103	Geometry	3	0	0	3
MEC 1116	Treatment of Non-Ferrous Metals	2	0	3	3
PHY 1101	Applied Science I	3	2	0	4
		11	2	18	18
FOURTH QUARTER					
MEC 1104	Machine Shop Theory and Practice IV	4	0	15	9
MAT 1104	Trigonometry	3	0	0	3
ENG 1112	Communications II	3	0	0	3
PHY 1102	Applied Science II	3	2	0	4
		13	2	15	19

## PLUMBING V-037

One has only to look about him to observe the startling number of new structures going up, commercial, industrial, and domestic. Every such building has a plumbing system, and each system requires plumbers not only to install it but to keep it operating. This program trains the individual to enter this field with the theoretical knowledge he needs to understand new systems, as well as old, and the practical experience that enables him to become a journeyman in minimum time.

### Curriculum By Quarters

Course Title	Hours Per Week			
	C	L	P	QH
<b>FIRST QUARTER</b>				
PLU 1131 Plumbing I	8	0	15	13
DFT 1110 Blueprint Reading I	0	0	3	1
MAT 1117 Plumber's Arithmetic	4	0	0	4
	12	0	18	18
<b>SECOND QUARTER</b>				
PLU 1132 Plumbing II	3	0	15	8
WLD 1101 Basic Gas Welding	1	0	3	2
ENG 1101 Communications I	3	0	0	3
PHY 1101 Applied Science I	3	2	0	4
	10	2	18	17
<b>THIRD QUARTER</b>				
PLU 1133 Plumbing III	5	0	18	11
DFT 1112 Drafting I—Plumbing	1	0	3	2
PSY 1101 Human Relations	3	0	0	3
	8	0	21	16
<b>FOURTH QUARTER</b>				
PLU 1134 Plumbing IV	3	0	21	10
ENG 1112 Communications II	3	0	0	3
BUS 1103 Small Business Operations	3	0	0	3
	9	0	21	16

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit



## PRACTICAL NURSE EDUCATION V-038

The one year course of study for practical nursing is offered to individuals who have completed high school and are interested in short term nursing preparation. The program prepares for giving nursing care in hospitals, homes, and long-term care facilities.

Graduates are eligible to write the state Board Test Pool Examination for Practical Nurses. Successful attainment leads to licensure as a Licensed Practical Nurse (L.P.N.) in North Carolina.

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
PNE 1101	Fundamentals of Practical Nursing	7	0	0	7
PNE 1102	Nutrition & Diet Therapy	3	0	0	3
PNE 1103	Anatomy and Physiology	4	0	0	4
PNE 1105	Drug Administration	3	0	0	3
PNE 1201	Fundamentals Practicum Experience	0	0	6	2
		17	0	6	19
<b>SECOND QUARTER</b>					
PNE 1106	Medical-Surgical Nursing I	8	0	0	8
PNE 1111	Drug Therapy	3	0	0	3
PNE 1202	Medical Practicum (½ quarter)*	1	0	15	3
PNE 1203	Surgical Practicum (½ quarter)*	(1)	0	(15)	3
PSY 1101	Human Relations	3	0	0	3
		15	0	15	20
<b>THIRD QUARTER</b>					
PNE 1108	Nursing of Child	3	0	0	3
PNE 1110	Medical-Surgical Nursing II	8	0	0	8
PNE 1204	Pediatrics Practicum (½ quarter)*	1	0	15	3
PNE 1205	Advanced Surgical Practicum (½ quarter)*	(1)	0	(15)	3
ENG 1101	Communications I	3	0	0	3
		15	0	15	20
<b>FOURTH QUARTER</b>					
PNE 1107	Maternity Nursing	3	0	0	3
PNE 1113	Medical-Surgical Nursing III	7	0	0	7
PNE 1115	Personal & Vocational Relationships	3	0	0	3
PNE 1206	Maternity Practicum (½ quarter)*	1	0	15	3
PNE 1207	Rehabilitation Practicum (½ quarter)*	(1)	0	(15)	3
ENG 1112	Communications II	3	0	0	3
		17	0	15	22

\*Students will rotate for practicum experience during the quarter with each practicum experience receiving a separate grade.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

## WELDING AND METAL FABRICATION V-050

The Welding and Metal Fabrication program offered at Forsyth Technical Institute provides the student with the necessary experience in the welding and metal fabrication processes, and also broadens his technical education in such fields as blueprint reading, shop mathematics, metallurgy, and physical science. The principles of fabrication and fabrication equipment are taught in the shop each quarter along with the welding processes. Upon successful completion of the curriculum courses the student is given the standard American Welding Society (A.W.S.) Welder Qualification Test.

### Curriculum By Quarters

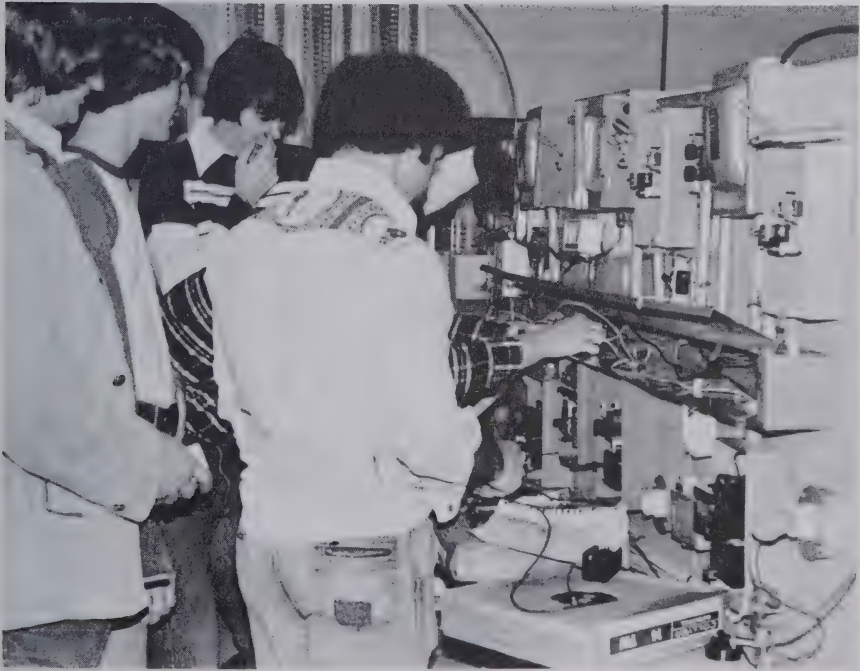
Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
MAT	1101	Fundamentals of Mathematics	5	0	0	5
PSY	1101	Human Relations	3	0	0	3
DFT	1104	Blueprint Reading: Mechanical I	0	0	3	1
WLD	1120	Oxyacetylene Welding and Cutting	4	0	15	9
			12	0	18	18
SECOND QUARTER						
ENG	1101	Communications I	3	0	0	3
PHY	1101	Applied Science I	3	2	0	4
WLD	1121	Basic Arc Welding	4	0	15	9
DFT	1117	Blueprint Reading: Welding	0	0	3	1
			10	2	18	17
THIRD QUARTER						
ENG	1112	Communications II	3	0	0	3
MEC	1115	Treatment of Ferrous Metals	2	0	3	3
WLD	1124	Advanced Arc Welding	3	0	12	7
WLD	1123	Inert Gas Welding	1	0	6	3
			9	0	21	16
FOURTH QUARTER						
BUS	1103	Small Business Operations	3	0	0	3
MEC	1112	Machine Shop Processes	1	0	3	2
WLD	1113	Mechanical Testing and Inspection	1	0	3	2
WLD	1126	Advanced Inert Gas Welding	3	0	9	6
WLD	1127	Introduction to Pipe Welding	1	0	6	3
			9	0	21	16

C-Class

L-Lab

P-Practicum

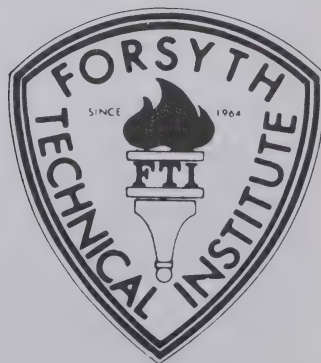
QH-Quarter Hours Credit







# CONTINUING EDUCATION



## CONTINUING EDUCATION PROGRAM

The Continuing Education Program offers a variety of courses that serve the many educational needs of our local community. These courses vary in purpose and may be designed specifically for the particular needs of the general public or of local industry. Presently the courses which make up the program fall within the following general classifications: Occupational Extension, Management Development Training, New Industry Training, Comprehensive Employment and Training Act Program, Adult High School Diploma, Enrichment, and Adult Basic Education. New programs and/or courses are periodically developed when needs become apparent.

Those individuals who wish to work toward a high school diploma or toward a diploma in one of the Management Development Training areas should plan their sequence of courses with the evening counselor.

Anyone seeking additional information or wishing to develop a new program should contact the Dean of Continuing Education at the Institute.

## OCCUPATIONAL EXTENSION PROGRAM

Courses in this program are occupationally oriented, providing adults with the opportunity to upgrade skills and knowledge in certain vocational and technical areas. This program includes upgrading training in such areas as drafting, health occupations, fire service training, and welding. It also gives the regular curriculum graduates of the Institute an opportunity to participate in a continuing education program after entering the world of work.

The following is a brief list of courses which have been offered in the past, and may be offered in the future:

Air Conditioning Service I	Offset Printing
Algebra	Industrial Electronics
Automotive Tune-Up	Plumbing Apprenticeship
Basic Arc Welding	Speed Reading
Basic Computer Logic	Recruit Training for Police
Blueprints and Measurements	Officers
Central Air Conditioning	Small Engine Repair
Systems	General Machine Shop
Communication in Nursing	Practices
Electrical Installation and	House Plan Drawing and
Repair	Planning
Electrical Apprenticeship	Woodworking

Nursing Assistant  
Estimating for Printers  
FCC Radiotelephone  
Operator's License Prep.  
I & II

Fundamentals of Solid State  
Color Television Circuitry

Hydraulics & Pneumatics

Mechanical Drawing

Numerical Control Milling

Machine Applications

Nursing Mathematics

Nutrition

Energy Conservation

Technical Illustrating

Unit Secretary

Introduction to Fire

Protection Hazards

Industrial Safety and

Accident Prevention

Technical Mathematics

Technical Report Writing

Tolerancing and Dimensioning

for Engineering Drawing

Truck Suspension and Wheel

Alignment

Written Communications

Tool Making

Machinist Apprenticeship

**COST:** \$5.00 registration fee per course.\*

**TIME:** Generally, classes are conducted one or two evenings per week (Monday through Thursday and Saturday mornings) for a period of eleven (11) weeks.

**NOTE:** The Dean of Continuing Education should be contacted if additional information about this program is required.



## MANAGEMENT DEVELOPMENT TRAINING

Management Development Training is an educational program designed to upgrade the competency of supervisory and mid-management personnel in business and industry. Classes are scheduled in accordance with the needs of industry.

Supervisors or potential supervisors may qualify for an MDT Diploma by completing 16 courses. For supervisors pursuing the MDT Diploma, it is suggested that this program be planned to cover a two-year period. Most of the courses are taught during evening hours and occasionally on Saturday mornings.

Applicants for this program should presently be supervisor or have ambitions to become a supervisor. There are no prerequisites for entry into the program.

The cost of the program is \$5.00 per course\*. There are four required courses and most courses meet one night per week for eleven (11) weeks.

The Management Development Training Program includes such courses as:

Art of Motivating & Handling People	Conference Leadership Training
Human Relations	Problem Solving & Decision Making
Principles of Management	Managing Absenteeism and Turnover
Applied Psychology	Abusive Use of Drugs
Job Analysis & Wage Salary Administration	OSHA Law Introduction & Industrial Safety
Quality Control	Organizing and Implementing a Safety Program
Time & Motion Study	Principles of Supervision
Business Letter Writing	Labor Law
Public Speaking	Handling Barriers in Communications
Business Math	Extemporaneous Speaking
Techniques of Clear Writing	Guidance & Counseling
Management by Objectives	Instructor Training
Principles of Management	Internal Communications
Personnel Management- Industrial Relations	
Planning & Controlling	
Staffing & Communicating	
Managing Time	

The Evening Counselor should be contacted for further information.

\*Not required for persons 65 years of age or older.



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## NEW INDUSTRY TRAINING

One of the basic objectives of Forsyth Technical Institute is to participate in the creation of more challenging and rewarding jobs for the citizens of our community by providing a customized training service to new and expanding industries. Subject to minimal limitations, this institution, in cooperation with the Industrial Services Division of the Department of Community Colleges, will design and administer a special program for training the production manpower required by any new or expanding industry creating new job opportunities. The purpose of this program is to assist new or expanding industry to meet its immediate manpower needs and to develop a long-range training program of its own to satisfy its continuing replacement and retraining needs.

This program includes the following services:

1. Consultation in determining job descriptions; defining areas of training; and prescribing appropriate course outlines, training schedules and materials.
2. Selection and training of instructors and providing instructional services for the duration of the training program.
3. Providing of suitable space for a temporary training facility prior to the completion of the new plant including the installation costs of equipment in the temporary training facility.

The Dean of Continuing Education should be contacted if additional information about this program is required.

## ADULT HIGH SCHOOL DIPLOMA PROGRAM

Forsyth Technical Institute, in cooperation with the Winston-Salem/Forsyth County School System and the Stokes County School System offers day and evening courses for high school credit to adult students wishing to obtain an adult high school diploma. Courses are taught at Forsyth Tech, Paisley High School and South Stokes High School.

Classes meet two days a week between 8 a.m. and 3 p.m. or two nights a week from 6 p.m. to 9 p.m. (There may be slight variations in time). Each class meets a total of 6 hours a week for eleven (11) weeks. Students may carry as many as four courses a quarter. A total of 17 courses is needed to complete the program. A passing score on the high school competency test is required before graduation. No stu-

dent will receive credit for a course if his cumulative absences and/or tardies total more than six hours. Late enrollment or late payment of fees does represent absences.

Generally, persons to be enrolled must be 18 years of age or older. Under certain circumstances, however, 16 and 17 year olds may be enrolled after the completion of a special petition. These applicants must still meet the requirements as set forth in state guidelines. Each enrollee must have completed the eighth grade, or a higher grade, in an accredited school, the eighth grade level in the Adult Basic Education Program conducted by the Department of Community Colleges, or the eighth grade equivalent on the GED or high school equivalency tests.

Information regarding eligibility, courses needed for graduation, and registration for classes can be obtained from the Admissions Office at Forsyth Technical Institute between 8 a.m. and 8 p.m. Monday through Thursday and between 8 a.m. and 5 p.m. Friday.

There is a \$5.00 registration fee for each course. Students must furnish their own books and supplies. (No fee is charged for any person age 65 or older.)

Transcripts of work completed will be furnished by the Records Office on written request of the student.

The following courses are offered at regular intervals at one or more of the above mentioned locations. English I, II, III, IV, essentials of English, English Language Arts, Current Literature, World Literature, Humanities, English Literature, American Literature, Black Writers, General Math, Metric Math, Consumer Math, Business Math, Algebra, Biology, Physical Science, Ecology, General Science, U. S. History, American Government, Economics, Psychology, Health, Typewriting, Bookkeeping, Electronic Calculators, Record Keeping and Business Law.

### **Filler Courses**

Filler courses listed below may be offered when 15 students notify an adult high school counselor at least three weeks before the quarter begins.

Acrylic Painting  
Basic Electronics  
Black History  
Chemistry

Decorative Art  
Freehand Drawing  
Public Speaking  
Sewing

Sociology  
Welding  
World Geography  
World History

The Admissions Office may be contacted for additional information about this program.

### ENRICHMENT PROGRAM

The Enrichment Program offers a variety of one quarter terminal courses designed for self-interest and self-development.

Some of the courses offered in the past are:

Antiques	Painting, Acrylic
Bread Baking, Gourmet	Painting, Oil
Cake Decorating	Pine Needle Crafts
Ceramics	Portraits (Charcoal, Pastel, Oil)
Chair Caning	Quilt Making
Crafts (Christmas, Easter, etc.)	Real Estate, State Exam Prep.
Crocheting	Sewing, Basic
Decorative Art	Sewing, Intermediate
Decoupage	Sewing, Advanced (Fitting)
Flower Arranging	Sewing, Drapery Making
Freehand Drawing	Sewing, Men's and Ladies' Jackets
Furniture Finishing & Refinishing	Sewing, Stretch Fabric & Lingerie
Income Tax, Basic	Sewing, Pattern Drafting, Basic
Interior Decorating	Sign Language
Knitting	Stained Glass
Law for Laymen	Stock Market
Leather Crafts	Tailoring
Local History & Genealogy	Upholstering Furniture
Macrame	Wallpaper Hanging
Needle Art (Embroidery, Needlepoint)	Wills, Trusts & Probate
	Woodcarving
	Weaving

**COST:** \$5.00 registration fee plus supplies. (65 or older no fee)

**TIME:** Classes are conducted one day or evening per week (Monday through Friday) and on Saturday morning for a period of eleven (11) weeks.

## **ADULT BASIC EDUCATION PROGRAM**

The purpose of the Adult Basic Education Program is to provide education for illiterate and undereducated adults. The specific function of the program is to educate those over eighteen years of age whose inability to speak, read, or write the English language constitutes a substantial impairment of their ability to obtain or retain employment commensurate with their real ability—with a view: “to making them less likely to become dependent on others; to improving their ability to benefit from occupational training and otherwise increasing their opportunities for more productive and profitable employment, and to make them better able to meet their adult responsibilities.” Specifically the A.B.E. program is designed to allow adults to attain an eighth grade educational level.

Enrollment procedures for the Adult Basic Education Program include: (1) registration, (2) testing for placement, and (3) counseling. No transcripts or formal academic credentials are required for admission.

The majority of A.B.E. classes are held in public school buildings through a cooperative agreement with the Winston-Salem/Forsyth County School System. Classes usually meet two nights per week, three hours per night. No fees are charged to the student and all books and materials are supplied free of charge.

## **COMPREHENSIVE EMPLOYMENT AND TRAINING ACT PROGRAM**

CETA courses are designed to alleviate conditions of unemployment and underemployment. These courses are directed toward the disadvantaged and provide an opportunity for these persons to gain a vocation and acquire a marketable skill. All students in these courses are recruited and selected by the N. C. Employment Security Commission.

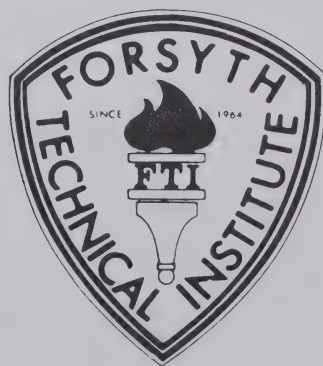
Following is a brief list of CETA courses which have been offered in the past:

Food Service Worker  
Carpentry  
Welding  
Woodworking  
House Painting  
Child Care Worker

Upholstering  
General Office Clerk  
Unit Ward Clerk  
Medical Records Clerk  
Patient Care Technician



# COURSES OF INSTRUCTION



## AGRICULTURE

### AGR 140 Home Maintenance 2 4 0 4

A course dealing with the various jobs associated with maintaining a lawn and home surroundings throughout the year. Included would be shrub fertilization, tree fertilization, disease control of lawns and shrubs, pruning, proper irrigation of shrubs and lawns and proper use of various herbicides and pesticides. It will be aimed at the person interested in making maintenance their choice of career work. Prerequisite: None.

### AGR 145 Entomology and Pathology 3 4 0 5

A study of insects that attack ornamental plant materials. The nature, structure and importance of each insect is studied in detail. Additional emphasis is placed upon detection, identification and control of the insects studied. A study of the control of disease of ornamental crops through the study of structure, life history and identification of the various parasitic disorders which plague ornamental trees, shrubs, flowers, and turf.

### AGR 150 House Plants 3 0 0 3

A course dealing with simple Botany, Taxonomy, Physiology, identification, culture and care of house plants. One hundred of the more common indoor plants will be studied and identified. Prerequisite: None.

### AGR 151 Plant Materials I 3 4 0 5

Introduction to the study of woody plant materials which gives an overview of the woody plants grown in nurseries for landscape purposes and those found in woodlands and fields of North Carolina. Emphasizes deciduous shrubs and small trees. Prerequisite: None.

### AGR 152 Plant Materials II 3 4 0 5

A continuation of AGR 151 in which additional trees and shrubs are studied. Major emphasis placed upon the detailed study of broad leaved and narrow leaved evergreens. Prerequisite: AGR 151.

### AGR 153 Greenhouse Management 3 2 0 4

Fundamentals and practices in greenhouse plant production. Construction and management of plastic and glass greenhouses, including the control of heat, light, ventilation, and humidity. Crop studies include both cut flowers and pot plant crops. Prerequisite: None.

### AGR 170 Plant Science 4 2 0 5

An introductory general botany course covering the fundamental principles of the reproduction, growth, functions and development of seed bearing plants. Prerequisite: None.

### AGR 185 Soil Science and Fertilizer 5 2 0 6

A course dealing with basic principles of efficient classification, evaluation and management of soils. Care, cultivation, fertilization of the soil, and conservation of soil fertility. Prerequisite: None.

### AGR 200 Practicum 0 0 30 3

A course to permit students to become oriented to the physical aspects of jobs available in their chosen field and to provide opportunities for the development of personal relationships of the type needed by students in any job. To enable students to acquire the skills and practical knowledge necessary for success in their chosen career fields. Prerequisite: Must be second year Horticulture students pursuing degree.

**AGR 201   Agricultural Chemicals** **3   0   0   3**

A study of agricultural chemicals — their importance, ingredients, formulation, and application with emphasis on the effective and safe utilization of chemicals in agricultural pest control. Major emphasis placed upon weed identification and those chemicals utilized for weed control. Part of the course devoted to those chemicals other than herbicides — such as insecticides, fungicides and others. Prerequisite: CHM 101.

**AGR 210   Field Analysis** **5   0   0   5**

Students will keep records of the experience received in Practicum AGR 200. They will relate such experience to the following major areas of instruction. Plant materials, Plant Science, Soil Science and Fertilizer, Agricultural Chemicals, Landscape Construction, Landscape Gardening, Plant Propagation, and Nursery Management. Records will be summarized in the form of a weekly report and reviewed by the instructor. These reports will culminate in a final term paper.

**AGR 220   Vegetable and Flower Gardening** **4   0   0   4**

For the student to be able to plan effectively a complete vegetable garden that will encompass the entire year. The student will also learn how to properly grow them by use of insecticides, herbicides, and proper fertilization. If possible the students will have a garden to take care of so that they might carry out their classroom work.

**AGR 240   Landscape Construction** **4   2   0   5**

A study dealing with the actual construction of brick patios, walks, steps, brick borders, brick walls around trees, lawn furniture, picnic tables, or other wood projects which may be used in a home landscape. It will also cover estimating the job cost of these various projects, including drawing plans to scale. Prerequisite: None.

**AGR 251   Landscape Gardening I** **3   4   0   5**

An introduction and study of the basic principles of landscape design. Considerable emphasis placed on the problems associated with residential site development. Includes a section devoted to blueprint reading. Considerable laboratory time devoted to visiting established residential sites. The course is not oriented toward a mastery of creativity and artistry, but toward an understanding of certain principles fundamental to all landscape design endeavors. Prerequisites: AGR 151 & AGR 152.

**AGR 252   Landscape Gardening II** **3   4   0   5**

Development and maintenance of landscape areas including planting, pruning, fertilization, and pest control. Fundamentals of landscape economics: cost, contracts, calculating areas, volumes, and plant quantities for landscape projects. Selection and use of materials in landscape construction. Prerequisite: AGR 151, AGR 152, AGR 251.

**AGR 254   Plant Propagation** **3   2   0   4**

A study of basic concepts and principles of sexual and asexual propagation. Techniques studied through practical exercises conducted in laboratory sessions. Emphasis given to those propagation methods widely utilized in the industry. Prerequisite: None.

**AGR 256   Nursery Management I** **2   4   0   4**

An introductory study of nursery operations to acquaint the student with the diversity of nursery plant production, equipment, and operation detail through the study of such areas as pruning, fertilization, plant protection, and others. Additional emphasis placed on the theory and practices necessary to produce profitable nursery stock. Prerequisite: None.

**AGR 257 Nursery Management II****2 4 0 4**

A continuation of AGR 256 with increased emphasis placed upon production schedules, choice and quantities of stock to be grown, as well as developing cost finding, price establishing and record keeping for economically important nursery crops. Planning of nursery layout and facilities. Prerequisite: AGR 256.

**AGR 258 Turf Practices****3 4 0 5**

A study of special-purpose turf grasses including identification, use, establishment, and maintenance of the specific grasses. Laboratory time used for field trips to golf courses where each student observes and participates in those operations required to maintain a healthy, vigorous playing surface. Prerequisite: AGR 185.

**AGR 259 Garden Center Management****1 2 0 2**

A course covering all phases of garden center operations including some of the major problems. Areas of study include such factors as: layout, stocking, product knowledge, traffic flow, seasonal fluctuation, risks, diversification, and merchandising. Ample time devoted to visiting established garden center operations. Prerequisite: None.

## **AIR CONDITIONING**

**AHR 106 Architectural Mechanical Equipment****3 0 3 4**

General study of heating, air conditioning, plumbing and electrical equipment, materials and symbols. Building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings by mechanical engineers. Coordination of mechanical and electrical features with structural and architectural designs. Prerequisite: None.

**AHR 1101 Automotive Air Conditioning****2 0 3 3**

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of the operation, and control; proper handling of refrigerants in charging the system. Prerequisite: None.

**AHR 1102 Fundamentals of Refrigeration****7 0 9 10**

Identification, selection and use of hand, measuring and special refrigeration tools; power drills, grinders and pipe threaders; copper tubing, fittings and tubing fabrication. Physics related to refrigeration. The basic refrigeration cycle. Classification, characteristics and properties of refrigerants. Types, purpose and principle of operation of compressors, condensers, receivers and evaporators. Assembly operation of a basic refrigeration system. Leak checking, evacuating and charging. Compressor operational checks. System trouble analysis. Prerequisite: None.

**AHR 1103 Domestic and Commercial Refrigeration****6 0 12 10**

Types and operating principles of domestic hermetic units. Also domestic absorption units. Operation and trouble analysis of hermetic electrical components and circuits. Repair and maintenance of hermetic units. Calculation of heat loads. Equipment selection and system balance. The purpose, operating principles, installation and maintenance of the following: floats, automatic and thermostatic expansion valves, thermostatic and pressure motor controls, heat exchangers, oil separators, driers, suction filters and minor accessories. Installation, operation, service and trouble analysis of the following equipment: walk-in coolers, display cases, frozen food cabinets, reach-in cabinets, water coolers and ice makers. Also multiple compressor and evaporator system operation. Prerequisite: AHR 1102.



**AHR 1104 Air Conditioning Controls I** 5 0 3 6

Theory of electrical and electronic controls. Principles of operations, application, connection and adjustment: pressure regulators and electrical thermostats, dual thermostats, heating-cooling thermostats and humidistats, valves, dampers and pilot positioners, non-bleed controllers, two-position controls. Theory of electrical controls. Principles of operation, application, wiring and adjusting: Series 20, 60, and 90 controls. Prerequisite: None.

**AHR 1105 Principles of Air Conditioning** 5 0 9 8

Introduction to air conditioning. Psychrometrics. Principles of load estimating. Air distribution. Applied load estimating. Residential and commercial equipment. Balancing the system. Prerequisite: None.

**AHR 1106 Air Conditioning Controls II** 3 0 3 3

Theory of pneumatic controls. Principles of operations, pneumatic application, connection and adjustment: pressure regulators and pneumatic thermostats, dual thermostats, heating-cooling thermostats and humidistats, valves, dampers and pilot positioners, non-bleed controllers, two-position controls. Theory of electrical controls. Principles of operation, application, wiring and adjusting: Series 20, 40, 60 and 90 controls. Prerequisite: None.

## AUTOMOTIVE

**AUT 1111 Automotive Body Repair I** 3 0 12 7

Basic principles of automobile construction, design, and manufacturing. A thorough study of angles, crown, and forming of steel into the complex contour of the present-day vehicles. Application of basic principles of straightening, aligning, and painting of damaged areas. Prerequisite: None.

**AUT 1112 Automotive Body Repair II** 3 0 15 8

A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders. Metal working and painting. Prerequisites: AUT 1111, WLD 1101.

**AUT 1113 Metal Finishing and Painting** 2 0 12 6

This course is intended to teach the student the principles and techniques of refinishing auto bodies. Topics covered are: paint removal, masking, preparing surfaces, paint selection, spray equipment, and practice spraying. Prerequisites: AUT 1112, WLD 1102.

**AUT 1114 Frame Straightening and Alignment** 2 0 6 4

This course is an introduction to the repair of automobile frames and suspension systems. Instruction will include: assessing frame damage, traming, frame straightening equipment, safety, frame straightening and frame repair. Prerequisite: AUT 1112.

**AUT 1116 Auto and Truck Painting** 3 0 21 10

This course is intended to give the student practice in surface preparation and paint application. The following topics will be covered: review of finishes, surface preparation, undercoats, topcoats, and common painting problems. Prerequisite: AUT 1113.

**AUT 1123 Automotive Chassis and Suspension Systems** 4 0 15 9

Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension and steering systems. Units to be studied: shock absorbers, springs, steering systems, steering linkage and front end and its alignment. Prerequisite: None.

**AUT 1124 Automotive Power Trains****3 0 9 6**

Principles and functions of automotive power train systems: clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair. Prerequisite: None.

**AUT 1125 Automotive Servicing****3 0 9 6**

Emphasis on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. Trouble-shooting of automobile systems, providing a full range of experiences in testing, adjusting, repairing and replacing. Prerequisite: None.

**PME 1101 Internal Combustion Engines****4 0 15 9**

Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication, and methods of testing, diagnosing and repairing. Prerequisite: None.

**PME 1102 Automotive Electrical Systems****4 0 15 9**

A thorough study of the electrical system of the automobile. Battery, cranking mechanism, generator, ignition, accessories and wiring; special tools, and testing equipment for the electrical system. Prerequisite: None.

**PME 1103 Automotive Fuel Systems****1 0 3 2**

A study of the characteristics of fuels, types of fuel systems, fuel pumps, carburetors, fuel injectors, special tools and testing equipment for the fuel system. Prerequisite: None.

## BIOLOGY

**BIO 010 Human Anatomy****3 0 0 0**

This course is designed to acquaint students with basic knowledge of human anatomy by tracing system pathways. The student may also gain proficiency in medical and biological terminology. Prerequisite: None.

**BIO 101 General Biology I****3 2 0 4**

A functional course in biology with emphasis on scientific reasoning, cellular structure and function, human anatomy and physiology, and the diversity of living organisms. Prerequisite: None.

**BIO 102 General Biology II****3 2 0 4**

A continuation of BIO 101 with emphasis on reproduction and development, inheritance, ecological principles, and evolution by natural selection. Prerequisite: BIO 101.

**BIO 107 Anatomy and Physiology I****3 2 0 4**

An introduction to normal structure and function of the human body. When relevant, clinical applications are made to relate normal structure and function to basic pathological conditions. Students are given the opportunity to employ their assimilated knowledge in class discussion and laboratory work. Laboratory participation introduces additional information which the student gains by participating in various lab exercises and learning experiences. Prerequisite: None.

**BIO 108 Anatomy and Physiology II****3 2 0 4**

A continuation of BIO 107 with emphasis on the vascular system, respiratory system, digestive system, urinary system, fluid and electrolyte balance, endocrine system, and the reproductive system. Prerequisite: BIO 107.

**BIO 111 Microbiology****3 2 0 4**

This is a one-quarter course designed to provide an understanding of microbiological principles and applications. Emphasis is placed on microbial classifications, structure and function, host-parasite relationships, and relations to man. Laboratory sessions are concerned with principles of identification, slide techniques, culture methods, and sterile procedures. Prerequisite: None.

**BIO 112 Pathology****3 0 0 3**

This course deals with the study of disease. The student will be taught the cause, pathogenesis, occurrence, complications, and prognosis of common diseases. Prerequisite: BIO 108, BIO 111.

**BIO 115 Medical Terminology I****1 0 0 1**

The first of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology I.

**BIO 116 Medical Terminology II****1 0 0 1**

The second of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service, and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology II. Prerequisite: BIO 115.

**BIO 139 Topographical Anatomy****2 0 0 2**

The student receives a coordinated approach to aid him in visualizing his patient's anatomy. This reconstructural technique builds the body from its skeleton toward the surface. Living anatomy is stressed throughout, so that surface landmarks and palpations are constant reminders of deeper structures. Prerequisite: BIO 107 and BIO 108.

**BIO 169 Fundamentals of Disease Processes****4 0 0 4**

The student is introduced to the major processes involved in producing pathological entities and disorders in man and how such states interfere with normal physiology. After this knowledge of diseases and abnormal states is acquired, it is correlated with the more commonly seen pathology in clinical practices. Emphasis will then be placed upon the fundamental principles of microbiology, the relationship of microorganisms to disease, modes of transmission, control and the etiological agents of infectious diseases. Prerequisites: BIO 107 and BIO 108.

## BUSINESS

**BUS 010 Pre-Technical Accounting****5 0 0 0**

Designed to present an overview of the complete bookkeeping cycle including journalizing, posting, summarizing, preparing of financial statements, and closing of books.

**BUS 030 Introduction to Shorthand****5 0 0 0**

This course provides for the introduction of basic shorthand theory, dictation of practiced materials and transcription skills, and develops a fluent reading rate. This is an introduction to Shorthand I.

**BUS 100 Rapid Calculations**

3 0 0 3

A course designed to prepare the student to compute problems in arithmetic with a minimum of effort and time. Students will need to know the multiplication tables through twelve, memorize the squares of numbers through twenty-five. A knowledge of first year algebra will be helpful but not prerequisite. After each method is learned, drill will be required for the purpose of reinforcing memory and developing speed. Prerequisite: None.

**BUS 101 Introduction to Business**

5 0 0 5

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management. Prerequisite: None.

**BUS 102 Typewriting I**

2 0 3 3

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

**BUS 103 Typewriting II**

2 0 3 3

Emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. Includes application of these skills and techniques in tabulation, manuscripts, correspondence, and business forms. Prerequisite: BUS 102 or the equivalent.

**BUS 104 Typewriting III**

2 0 3 3

Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms. Prerequisite: BUS 103 or the equivalent.

**BUS 105 Typewriting IV**

2 0 3 3

A continuation of BUS 104. Prerequisite: BUS 104 or equivalent.

**BUS 106 Shorthand I**

3 0 3 4

A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases. Prerequisite: None.

**BUS 107 Shorthand II**

3 0 3 4

Continued study of theory with greater emphasis on dictation and elementary transcription. Prerequisite: BUS 106 or equivalent.

**BUS 108 Shorthand III**

3 0 3 4

Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription. Prerequisite: BUS 107.

**BUS 109 Business Mathematics**

5 0 0 5

Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

**BUS 110 Office Machines I**

2 0 3 3

This course is designed to introduce students to various types of electronic calculators and their use in basic business mathematical computations. The fundamental principles of using the 10-key touch in addition, subtraction, multiplication and division are covered, as well as such specifics as percents, discounts, commissions, chain discounts, interest, markup, markdown, and payroll. Prerequisite: None.



**BUS 112 Techniques of Machine Transcription** 2 0 3 3

Emphasis placed on the use of the dictionary and secretarial reference manual in producing mailable transcripts. The following items are included: expression of dates and numerical amounts; letter style, format, and placement; capitalization and punctuation; word spelling and division. Prerequisite: BUS 103.

**BUS 113 Vocabulary/Terminology I** 3 0 0 3

Develops an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in business, technical, and professional offices.

**BUS 114 Vocabulary/Terminology II** 3 0 0 3

Greater emphasis on the understanding of terminology and vocabulary in the business environment with special emphasis in such areas as the medical and legal professions as well as word processing. Prerequisite: BUS 113.

**BUS 115 Business Law I** 3 0 0 3

A general course designed to acquaint the student with certain fundamentals and principles of business law. Includes contracts, negotiable instruments, and agencies. Prerequisite: None.

**BUS 116 Business Law II** 3 0 0 3

Includes the study of laws pertaining to bailment, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115.

**BUS 120 Accounting I** 4 0 3 5

The study of the principles, techniques and tools of the accounting process. Includes the collecting, summarizing, analyzing and reporting of financial information. Emphasizes application of the principles learned. Prerequisite or Co-requisite: BUS 109, MAT 101 or MAT 111.

**BUS 121 Accounting II** 4 0 3 5

Major attention given to the procedures involved in the recording of receivables, payables, inventories, deferrals, accruals, plant assets, and payrolls. Emphasizes application of the processes learned. Prerequisite: BUS 120.

**BUS 122 Accounting III** 4 0 3 5

The study of accounting principles for partnerships and corporations. Major attention is given to accounting processes for financing partnerships and corporations and the preparation of financial statements. Emphasizes applications of the processes learned. Prerequisite: BUS 121.

**BUS 123 Business Finance I** 3 0 0 3

A study of the principles and problems of financing business firms from the standpoint of maintaining solvency. Emphasizes short-term financing in relation to uses, sources, and management of credit. Introduction of long-term debt and equity financing. Prerequisites: BUS 120, BUS 121.

**BUS 124 Business Finance II** 3 0 0 3

A study of long-term financing. Emphasis on equity financing within the corporation. Topics include the security markets, and investment companies; growth through acquisition; and liquidation procedures. Prerequisite: BUS 123.

**BUS 125 Accounting Practice Set** 1 0 0 1

A comprehensive practice set involving the principles learned in Accounting I, Accounting II, and Accounting III. The practice set will include business transactions common to both sole proprietorships and corporations. Prerequisites: BUS 120, BUS 121, BUS 122.

**BUS 130 Career Planning and Job Hunting 2 0 0 2**

An in-depth study of developing realistic career objectives and goals. Emphasis is placed on learning how to sell one's self in the job market and how to set the stage for long-term fulfilling career development. Prerequisite: None.

**BUS 162 Fundamentals of Real Estate I 3 0 0 3**

Fundamental principles and theories of real estate are covered including terminology, North Carolina's licensing laws, ethics, legal environment, forms and instruments, mathematics, finance; closing statements and procedures. Prerequisite: None.

**BUS 163 Fundamentals of Real Estate II 3 0 0 3**

This course is a continuation of BUS 162 Fundamentals of Real Estate I. Theory and practice of real estate are covered including methods of financing, appraisals, advertising and marketing. Prerequisite: BUS 162.

**BUS 164 Real Estate Law 5 0 0 5**

A survey course of law as it relates to real estate activities including the legal aspects pertaining to the sale, purchase and management of real property. Special emphasis is placed on the legal steps needed to handle real estate transactions from the preparation of the listing contract to the closing statement. Prerequisite: None.

**BUS 206 Dictation and Transcription I 3 0 3 4**

Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study. Includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material. Prerequisite: BUS 108.

**BUS 207 Dictation and Transcription II 3 0 3 4**

Emphasizes accuracy, speed, and vocabulary that will enable student to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material. Prerequisite: BUS 206.

**BUS 208 Dictation and Transcription III 3 0 3 4**

Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material. Prerequisite: BUS 207.

**BUS 209 Real Estate Finance 5 0 0 5**

A study of real estate finance including an analysis of financial institutions, techniques, and instruments necessary in real estate. Topics include the sources of funds, types of mortgages, role of government agencies, interest rates, loan costs, closings and competition in the money market.

**BUS 211 Office Machines II 2 0 3 3**

Instructions in the operation of duplicating equipment and dictating and transcribing machines. Prerequisite: BUS 103.

**BUS 212 Machine Transcription I 2 0 3 3**

Develops the skill of direct transcription from oral dictation to mailable typewritten form, which involves correct punctuation, spelling, and typing styles.

**BUS 213 Filing 3 0 0 3**

Fundamentals of indexing and filing, combining theory and practice by use of miniature letters, filing boxes and guides, given through individualized instruction. Course includes alphabetic, numeric, and geographic filing as well as records control. Course offered through the Individualized Learning Center. Prerequisite: None.

**BUS 214 Secretarial Procedures 4 0 6 6**

Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. Includes receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims. Prerequisite: Open to second year students only.

**BUS 215 Machine Transcription II 2 0 3 3**

Builds speed in the skill of direct transcription from oral dictation to a mailable typewritten form, which involves correct punctuation, spelling, and typing styles. Prerequisite: BUS 212.

**BUS 216 Real Estate Sales 3 0 0 3**

A study of the current sales techniques in the real estate industry, including problems in selling as well as emphasis on consumer motivation and reactions. Particular emphasis is placed on morals and ethics related to the sale of real property. Other topics include the methods of securing property listings and prospective customers, bringing the prospect and property together, the use of advertising in the selling function, the basic development of a sales plan and sales presentation. Prerequisite: None.

**BUS 217 IBM Mag Card II Mini Course 2 0 0 2**

This course is designed to give concentrated instructions on the IBM Mag Card II Typewriter. Students will receive instructions on the features of the typewriter, typing and playing back various problems in memory, working with magnetic cards, scanning, and making revisions. Prerequisite: BUS 103. (3)

**BUS 218 Memory Typewriter Mini Course 2 0 0 2**

This course is designed to intensify student development in the use of automatic typewriters. Basic training is included in operating an IBM Memory Typewriter and skills are developed through special applications and problems. Prerequisite: BUS 103.

**BUS 219 Office Application 1 0 20 3**

During the last quarter only, students are assigned to work in a business or professional office for 20 hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned.

**BUS 221 Intermediate Accounting I 5 0 0 5**

Thorough treatment of the field of general accounting, providing the necessary foundation for specialized studies that follow. The course includes, among other aspects, the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments, and analysis of working capital. Prerequisite: BUS 122.

**BUS 222 Intermediate Accounting II 5 0 0 5**

Additional study of intermediate accounting with emphasis on investments, plant and equipment, intangible assets and deferred charges, long-term liabilities, paid-in capital, retained earnings, and special analytical processes. Prerequisite: BUS 221.

**BUS 223 Governmental Accounting 2 0 3 3**

A study and application of principles of accounting and budgeting as they apply to municipal, state, and federal governmental units. Prerequisite: BUS 221.

**BUS 225 Managerial Cost Accounting I 2 0 3 3**

The study of principles, techniques, and tools of the cost accounting processes within the job cost and process cost system. Emphasis on application of principles learned. Prerequisite: BUS 122.

**BUS 226 Managerial Cost Accounting II** 2 0 3 3

A continuation of Cost Accounting I, with emphasis on standard cost principles and procedures; selling and distribution cost; direct costs; budgets and executive use of cost figures. Prerequisite: BUS 225.

**BUS 227 Intermediate Accounting III** 2 0 3 3

A study of advanced principles and practices. Special emphasis is placed on the development of worksheet techniques for solution of problems. Accounting procedures related to partnerships, branch accounting and parent-subsidiary relationships are studied in depth. Current publications from professional journals are studied and discussed. Prerequisite: BUS 222.

**BUS 228 Real Estate Investments and Taxation** 3 0 0 3

A study of fundamental investment concepts including location, timing and methods of financing, designed to provide the prospective investor with a guide to successful real estate investment. Emphasis will be placed on investment during the development process, what to buy and how to buy. Other topics to be discussed are how to take title for individual ownerships or partnerships, when to invest in real estate corporations and trusts, tax consequences and investment, and the influence of federal and state laws on real estate investments. Prerequisite: None.

**BUS 229 Taxes** 2 0 3 3

A study and application of federal and state taxes as applied to individuals, partnerships, and corporations. Emphasizes the preparation of individual income tax returns. Prerequisite: None.

**BUS 230 Advanced Taxes** 2 0 3 3

(A continuation of BUS 229)

A study and application of federal and state taxes as applied to individuals, partnerships, and corporations. Emphasizes the preparation of individual income tax returns.

**BUS 231 Real Estate Merchandising** 3 0 0 3

A survey of the field of real estate advertising with emphasis on the relationship to the market structure of our economy. Prerequisite: None.

**BUS 232 Sales Development** 3 0 0 3

A study of retail, wholesale and specialty selling. Emphasizes the mastering and the application of the fundamentals of selling. Preparation for and execution of sales demonstrations required. Prerequisite: None.

**BUS 233 Personnel Management** 3 0 0 3

Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits and security.

**BUS 234 Advanced Sales** 3 0 0 3

A continuation of Sales Development, BUS 232.

**BUS 235 Business Management** 5 0 0 5

An introduction to the concepts of business and other organizational management. Analysis and practice of management procedures. Includes planning and decision-making, organizational structures and behavior, leadership and motivation, and resources control. Prerequisite: None.

**BUS 236 Land Development** 3 2 0 4

A study of the land and population economics of land utilization and the development factors related to manufacturing, labor, transportation and commerce in or near the development location. Prerequisite: None.



<b>BUS 237 Wholesaling</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
A comprehensive analysis of the wholesaling function emphasizing the principles and techniques employed by today's wholesale managers. The role of wholesaling in our distribution system and its relation to production and retailing are thoroughly analyzed. Prerequisite: None.				
<b>BUS 238 Land use Policy and Governmental Influences on Real Estate</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>4</b>
A study of the local and national trends in the development, use and value of real property, as well as governmental policies and their effect on the real estate market. Skills are developed in the analysis, research and correlation of the various trends, policies, and factors affecting real estate. Prerequisite: None.				
<b>BUS 239 Marketing</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>
A study of the principles and problems of marketing goods and services in a free enterprise economy. Emphasizes product selection and development, promotion, channels of distribution and pricing. Prerequisite: None.				
<b>BUS 241 Social Stratification</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
An analytic approach to the existence of social classes in nearly all societies while offering specific concepts and research on buying, living, and social stratification in the United States. Prerequisite: None.				
<b>BUS 242 Display and Design</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>4</b>
Internal — An introduction to basic layout and design of commercial displays, retail store, and service institutions. Prerequisite: None.				
<b>BUS 243 Advertising</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
The study of the methods and techniques used by ad men and agencies to persuade the public to buy. Topics covered are market research, selection of media, and evaluation and testing of ad effectiveness. Theory and practice in writing and designing ad copy included in class activity. Prerequisite: None.				
<b>BUS 244 Marketing Research</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>5</b>
Research methods, procedure, techniques. Included will be finance, statistics, sampling, collection of data. A practical field problem will be integrated. Prerequisite: None.				
<b>BUS 245 Retailing</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>
A study of the role of retailing in our distribution system. Topics include the development of present retail practices, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends. Prerequisite: None.				
<b>BUS 246 Public Relations</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
Public Relations focuses on the planned effort necessary to influence public opinion through good character and responsible performance. Emphasis is placed on the necessity of mutually satisfactory two-way communications. Public relations for businesses is given special attention. Prerequisite: None.				
<b>BUS 247 Business Insurance</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. Prerequisite: None.				
<b>BUS 249 Marketing-Retailing Seminar</b>	<b>3</b>	<b>0</b>	<b>20</b>	<b>5</b>
Provides a student with an opportunity to pursue, under supervision, work experience in the field of marketing, thus giving realism and motivation to his field of study. Prerequisite: None.				

**BUS 262 Fashion Merchandising** 3 2 0 4

Designed to acquaint the student with fashion and style, characteristics of style, trends, coordination of color and design analysis. Prerequisite: None.

**BUS 269 Auditing** 2 0 3 3

A study of the theory and practices of auditing, including professional standards and rules of conduct. Emphasis is placed on specific techniques of auditing various balance sheet accounts. Comparative analysis using rapid calculation procedures will be stressed. Study also includes detailed audits, internal auditing and internal control. Current trends in statement preparation are reviewed. Prerequisite: BUS 222.

**BUS 272 Principles of Supervision** 3 0 0 3

A study of the basic responsibilities of the supervisor and his relationship to supervisors, subordinates and associates. Emphasizes methods of supervision and problem solving through case studies.

**BUS 292 Appraisal I** 3 0 0 3

A study of the principles and theory of appraising real property. Topics studied include site evaluation, building materials and components, methods of appraising property, professional organizations and developing and operating an appraisal business. Prerequisite: None.

**BUS 293 Appraisal II** 3 2 0 4

A study of the methods and techniques used in estimating the value of residential properties. Topics include analysis of economical factors affecting the value of real estate, local, state, federal and neighborhood influences and attitudes, economical factors, and estimation of value. Prerequisite: Appraisal I, BUS 292.

**BUS 294 Appraisal III** 3 2 0 4

A study of the capitalization of income and the income approach to value. Topics covered include an analysis of steps to estimate the value of income-producing properties such as apartments, hotels, motels, office buildings, retail stores, industry, etc.; interest rates; recapture rates; capitalization rates; and appraisal of lease interests. Prerequisite: Appraisal II, BUS 293.

**BUS 296 Property Management** 3 0 0 3

A study of the nature of property management, the types of property, lease preparation, protection of property and property maintenance. Other topics include fair housing, tenant selection, advertising, ethics, budgeting, and associations with people. Prerequisite: None.

**BUS 1103 Small Business Operations** 3 0 0 3

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**BUS 1122 Typing I** 2 0 3 3

Introduction to the touch typewriter system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

**AIB 202 Principles of Bank Operations** 4 0 0 4

This course presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may acquire a broad and operational perspective. It reflects the radical changes in banking policy and practice which have occurred in recent years.

Topics covered are banks and the monetary system, negotiable instruments, the relationship of the commerical bank to its depositors, types of bank accounts, the deposit function, the payments function, bank loans and investments, other banking services (trust, international, and safe deposit), bank accounting and marketing, external and internal controls, and the public service obligations of banks.

**AIB 203 Bank Investments** 4 0 0 4

AIB's bank investments course covers the sources and uses of bank funds and the place of investment in the overall scheme of bank operations. Especially important are the relationship of investments to business and the unique functions, advantages, and purpose served by a wide range of securities. Investment terminology is covered in detail.

**AIB 205 Bank Management** 4 0 0 4

This course presents new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. It should be noted that the course is not one of personnel management, but rather of business management. It touches an objectives, planning, structure, control, and the interrelationship of various bank departments. Since case study is becoming well established as an effective management learning technique, the text also uses illustrative cases.

**AIB 209 Installment Credit** 4 0 0 4

This modular course emphasizes the pragmatic "how-to" details of Installment Credit. Topics covered are principles of credit evaluation, open-end credit, marketing bank services, collection policies and procedures, legal aspects, financial statement analysis, direct and indirect installment lending, leasing and other special situations, installment credit department management, insurance, and rate structure and yields.

**AIB 210 Money and Banking** 4 0 0 4

This course presents the basic economic principles most closely related to the subject of money and banking in a context of topics of interest to present and prospective bank management. The book stresses the practical application of the economics of money and banking to the individual bank. Some of the subjects covered include structure of the commercial banking system; the nature and functions of money; banks and the money supply; cash assets and liquidity management; bank investments, loans, earnings, and capital; the Federal Reserve System and its policies and operations; Treasury Department operations; and the changing international monetary system.

**AIB 231 Savings and Time Deposit** 4 0 0 4

This course reflects recognition of the fact that a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process are necessary to an understanding of the current operations and policies of these institutions. It begins with a review of the economics of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. Different types of financial savings are reviewed in order to describe the system of financial flow from income to capital investment. Also covered are interest rates, types of savings accounts, and the management of savings institutions (asset management, operations and control, supervision, liquidity, and marketing).

**AIB 233 Analysis of Financial Statements** 4 0 0 4

This course is divided into two main sections: Characteristics of Financial Statements and Financial Statement Analysis. The first section serves as a useful review of basic

accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis. (It should be emphasized, however, that Analyzing Financial Statements is an advanced course and difficult for students with little background in accounting). The second section of the course covers goals, methods, and tools of analysis; analysis of profit and loss, accounts receivable inventories, and balance sheets; the relationship of balance sheet accounts to sales; and to projected statements and cash budgets.

#### **AIB 235 Loan and Discount**

4 0 0 4

This course presents the essential facts about promissory notes, including calculating interest and discounting commercial paper; guaranties; general collateral agreements; examining and processing documents accompanying notes secured by stocks, bonds, and savings account passbooks; and the concepts of attachment, perfection, priority, default, and foreclosure. The course uses programmed instruction and several simulation exercises.

#### **AIB 239 Marketing for Bankers**

4 0 0 4

This course presents marketing as a broad concept, far more complex than public relations, advertising, and personal selling, which, its authors say, are important components of marketing but are not individually or collectively, the equivalent of marketing. It is designed for bankers who are unacquainted with marketing and deals with concepts and philosophies of marketing, marketing information, research, and target; the marketing mix (product strategy, distribution strategy, advertising and sales promotion, personal selling, and pricing strategy); and the methods of marketing planning.

## **CARPENTRY**

#### **CAR 1101 Framing, Sheathing and Insulation I**

2 0 18 8

Instruction in the principles and practices of frame construction beginning with the foundation sills and including: floor joist, subfloor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing, and interior wall partition. Layout and construction methods of common types of roofs using standard rafter construction, truss construction and post and beam construction. Application and selection of sheathing and roofing. Consideration given to the coordination of carpentry work with installation of the mechanical equipment such as: electrical, air conditioning, heating, and plumbing. Prerequisite: None.

#### **CAR 1102 Framing, Sheathing and Insulation II**

3 0 18 9

A continuation of CAR 1101. Prerequisite: None.

#### **CAR 1103 Interior and Exterior Trim**

3 0 21 10

Cornice work, siding installation of windows and doors emphasized. Prerequisite: None.

#### **CAR 1105 Finish Work**

6 0 21 13

Exterior and interior trim and finish carpentry to complete the general carpentry program. Materials and methods used in finishing carpentry such as: exterior cornice, door and window trim; interior flooring, door and window facing, moldings, and cornice construction; installation of hardware, construction and installation of built-in equipment and cabinets. Millwork as performed by the general carpenter for building construction. Prerequisite: None.



**CAR 1114 Building Codes****3 0 0 3**

Study of applicable sections of city, state, and national codes. Material correlated with all other carpentry courses. Prerequisite: None.

**CHEMISTRY****CHM 010 Chemistry — Pre-Technical****3 2 0 0**

This is an elementary course in chemistry equivalent to high school. It provides the necessary foundation in chemistry for students who enter: (1) a physical science technical curriculum which requires chemistry at the beginning, or (2) a technical program based on the biological sciences.

Topics and laboratory experiments are planned to teach chemistry which is related to the various chemical aspects of biological science. Laboratory exercises and experiments are designed to teach the fundamentals of chemistry and develop chemical laboratory skills.

**CHM 101 Chemistry****4 2 0 5**

Study of the physical and chemical properties of substances, chemical changes, elements, compounds, gases, chemical combinations, weights and measurements, theory of metals, acids, bases, salts, solvents, solutions, and emulsions. In addition, study of carbohydrates, electrochemistry, electrolytes, and electrolysis. Industrial and agricultural applications are emphasized.

**CHM 103 Chemistry****3 2 0 4**

Students will be introduced in lecture to important chemical principles fundamental to the understanding of life processes. This will include a foundation in general and organic chemistry followed by the essential features of organic chemistry which lays the groundwork for the study of the biochemistry of living systems.

Students are afforded the opportunity to expand their knowledge through classroom discussion and through laboratory work. The laboratory experiments are designed in some cases to introduce specific principles and in other cases to supplement and reinforce material introduced in lecture.

**CHM 104 Organic and Biochemistry****3 2 0 4**

To familiarize the student with the nomenclature, variety, usefulness and most significant topics in organic and biochemistry. Prerequisite: CHM 103.

**CIVIL ENGINEERING****CIV 101 Surveying****2 0 6 4**

Theory and practice of plane surveying including taping, differential and profile leveling, cross sections, earthwork computations, transit, stadia, and transitape surveys. Prerequisite: None.

**CIV 105 Architectural Materials and Methods****3 2 0 4**

Emphasizes materials used in the construction of architectural structures. Field trips to construction sites and study of manufacturer's specifications for materials. Properties and standard sizes of structural materials, and construction techniques included. Prerequisite: None.

**CIV 218 Plain Concrete****3 0 0 3**

Study of the composition and properties of concrete including cementing agents, aggregates, admixtures, and air entrainment; design and proportioning of concrete mixes to obtain predetermined strengths and properties; methods of placing and curing concrete; standard control tests of concrete. Prerequisite: None.

**CIV 1101 Surveying****2 0 3 3**

Basic instrumentation and topography, together with field trips and drafting room application of site surveying. Prerequisite: None.

**DIESEL****DSL 1101 Diesel Engines****4 0 15 9**

Development of a general understanding of the basic principles involved in the construction and operation of diesel engines; also, thermodynamic concept of cycles related to the diesel engines. An elementary study of performance characteristics of diesel engines and basic design in fuel systems. Work includes such overhaul jobs as grinding valves, gaging cylinder wear, removing and replacing cylinder liners, boring cylinders, replacing and adjusting bearings, gaging and installing piston rings. Prerequisite: None.

**DSL 1102 Diesel Electrical Systems****4 0 15 9**

A course designed to familiarize the student with the constructional and operational features of the electrical units which are used on preheating, starting and generating systems of diesel engines. Student activities in reconditioning techniques of generators, starters, and alternators. Use of test equipment for measurement, adjustment and trouble shooting included. Prerequisite: None.

**DSL 1103 Diesel Fuel Injection****2 0 6 4**

Theory related to a study of the variations in design and the principles of operation of fuel injection systems used on the automotive diesel engine. Practice work designed to familiarize the student with the operation, maintenance and testing of the units which comprise the fuel injection systems of diesel engines. Teaches student to maintain, repair, and test such units as fuel pumps, transfer pumps, spray nozzels and unit injectors. Prerequisite: None.

**DSL 1104 Power Trains, Chassis & Suspension Systems****4 0 15 9**

Instruction given in the construction features and operating principles of truck chassis, suspension, steering and brake systems. Teaches student to operate equipment to correct and adjust abnormalities in suspension and steering. Familiarization with the variations in design and functioning of brake systems as used by heavy trucks. Study of the construction and operation of such component parts as clutches, transmissions, propeller shafts and rear axles. Prerequisite: None.

**DSL 1105 Diesel Servicing****5 0 15 10**

A course intended for those who desire to become proficient in the field of diesel diagnosis and repair. Vehicles first given a complete checkout to determine the trouble, and the trouble corrected on the basis of the diagnostic report. Training provided on all major mechanical and electrical units. Preventive maintenance and servicing techniques taught as recommended by manufacturers. Prerequisite: None.

**DRAFTING****DFT 101 Technical Drafting I****2 0 6 4**

Introduction of the field of drafting as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Includes use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing (principal views). Prerequisite: None.

**DFT 102 Technical Drafting II** 2 0 6 4

Includes the application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, introduction to sections and conventions. Dimensioning practices for details and working drawing as approved by the American Standards Association. Prerequisite: DFT 101.

**DFT 103 Technical Drafting III** 2 0 6 4

A study of the various techniques employed to produce and render isometric and oblique drawings and isometric, dimetric, and trimetric projections. Introduction to screw threads and various fasteners. Prerequisite: DFT 102.

**DFT 106 Architectural Drafting I** 2 0 6 4

A course designed to provide fundamental knowledge of the principles of drafting. Basic skills and techniques of drafting include use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views. Projection problems dealing with principles of descriptive geometry involving points, lines, planes, and connectors. The principles of planning drafting introduced. Prerequisite: None.

**DFT 107 Architectural Drafting II** 2 0 6 4

Developing of techniques in architectural lettering, symbols, and their interpretation: dimensioning, freehand and instrument drafting. Drawings of construction details, using appropriate material symbols and connections. Sections, scale details and full-size details prepared from preliminary sketches. Applications of descriptive geometry use in visualization and analytical solutions of the drafting problems involving auxiliary views, intersections and developments. Prerequisite: None.

**DFT 108 Architectural Drafting III** 0 0 9 3

Development of design and programming skills applied to realistic situations. Introduction to rendering and projections. Prerequisite: None.

**DFT 113 Blueprint Interpretation-Mechanical** 3 0 0 3

A study is made of graphical methods and techniques used in expressing, interpreting, and communicating engineering ideas.

**DFT 150 Site Planning** 2 0 6 4

Introduction to factors influencing placement of buildings on sites. Specific analysis of sites in terms of solar, topographic, use and wind characteristics. Includes field work in surveying.

**DFT 181 History of Architecture and Construction** 5 0 0 5

Covers the evolution of building development from primitive to modern. Concerned with the chronological history of architectural construction and design. The principal periods studied: Pre-history, Ancient Egypt and Mesopotamia, Greece, Rome, Romanesque, Gothic, Renaissance, and Early American. Prerequisite: None.

**DFT 192 Orientation to Design Drafting** 1 0 0 1

Designed to acquaint the students with the field and with future employment opportunities. Identifies the role of the draftsman. Prerequisite: None.

**DFT 204 Descriptive Geometry** 3 0 3 4

Graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems stressed with analytical verification where applicable. Visualization stressed on every problem. Prerequisite: DFT 101.

**DFT 205 Design Drafting I****3 2 0 4**

Introduction to inking, welding symbols and methods of representing and specifying them. Introduces basic design in the study of motion, transfer mechanisms as they relate to power trains. Includes principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings and simplified drafting practices. Types and methods of specifying materials and workmanship integral part of the course. Prerequisite: DFT 103.

**DFT 206 Design Drafting II****2 6 0 4**

Introduction to piping, drawings and research to solve a problem in design by consulting various manuals, periodicals, and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly, and subassembly drawings, and specifications required as a part of the program. Prerequisite: DFT 205, DFT 260.

**DFT 211 Mechanisms****3 0 3 4**

Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulley, gears and gear trains. Prerequisites: DFT 206, MAT 103, MEC 104.

**DFT 212 Jig and Fixture Design****3 0 6 5**

Commercial standards, principles, practices and tools of jig and fixture design. Individual project and design work to acquaint students with the types of jigs and fixtures and their design. Prerequisites: DFT 211, DFT 223.

**DFT 220 Architectural Drafting IV****2 0 9 5**

Drawing of structural plans and details as prepared for building construction, including steel, concrete, and timber structural components. Appropriate details and drawings necessary for construction and fabrication of structural members. Reference materials used to provide the draftsman with skills and knowledge in locating data and in using handbooks. Prerequisite: None.

**DFT 221 Architectural Drafting V****2 0 9 5**

An approach in depth to the study of architectural drafting, continuing the study of details of construction and introducing the elements of mechanical and electrical equipment systems and their relationship to a finished building. Prerequisite: None.

**DFT 222 Architectural Drafting VI****2 0 9 5**

Preparation of the complete set of working drawings for the architectural structure. Preparation of millwork drawings, cabinets and built-in equipment detail drawings, and door, window, and room schedules. Site and landscaping plans studied and drawn. A final assembly of the complete document for construction purposes. Prerequisite: None.

**DFT 223 Design Drafting III****3 0 6 5**

Fundamentals of punch and die design. Commercial standards and principles of blanking, piercing, bending and forming dies; including compound and progressive. Electro-mechanical drawings of printed circuits, wiring diagrams, and schematics. Prerequisite: DFT 206.

**DFT 224 Product Design****2 0 6 4**

The bringing together of original idea, scientific theory involved, applicable product history, limiting manufacturing boundaries, aesthetic importance, and marketability considered with study given to relative importance and intended design goal. Prerequisites: DFT 211, DFT 223.



**DFT 233 Office Practice Seminar 2 0 0 2**

A study of the professional relationship of the architectural firm in relation to clients, contractors, suppliers, consultants and other architects. Ethics of the professional as applicable to the draftsman's role in the architectural firm stressed. Prerequisite: None.

**DFT 235 Codes, Specifications and Contract Documents 3 0 3 4**

A study of building codes and their effect in relation to specifications and drawings. The purpose and writing of specifications studied along with their legal and practical application to working drawings. Contract documents analyzed and studied for the purpose of client-architect-contractor responsibilities, duties and mutual protection. Prerequisite: None.

**DFT 236 Construction Estimating and Field Inspecting 3 0 3 4**

Interpretation of working drawings for a project; preparation of material and labor quantity surveys from plans and specifications; approximate and detailed estimates of cost. Includes study of materials take-off, labor take-off, subcontractor's estimates, overhead costs, and bid and contract procedures. Detailed inspection of the construction by comparing finished work to the specifications. Prerequisite: None.

**DFT 250 Architectural Media I 3 0 0 3**

This course will give the student a basic understanding of the use of photography, sketching, rendering, model building, and the combination of graphic arts in the presentation of architectural design.

**DFT 251 Architectural Media II 1 4 0 3**

This course will teach the student to present mood, atmosphere, pictorial surroundings and an indication of activity that shows functional purpose to the architectural rendering or illustration. To accomplish this, the study of the various media and techniques will be undertaken and developed by the student. The use of color, light and shadow to enhance the presentation will be stressed. Prerequisite: DFT 250.

**DFT 255 Twentieth Century Architecture 3 0 0 3**

Student awareness, consideration and criticism of the diverse forces on the aesthetic, constructional and design theories active in/the field of architecture today, and the evolution of building development from the late 1800's to the present. Primary master builders studied are Le Corbusier, Frank Lloyd Wright, and Robert Venturi. Prerequisite: None.

**DFT 260 Dimensioning and Tolerancing 1 0 3 2**

Standard Drafting Practices per USASIY 14.5. Includes general dimensioning; general applications of tolerances and limits; tolerance of position and form; advantages of true position tolerancing. Prerequisite: DFT 103.

**DFT 1101 Schematics and Diagrams 0 0 3 1**

Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes. Prerequisite: None.

**DFT 1104 Blueprint Reading: Mechanical I 0 0 3 1**

Interpretation and reading of blueprints. Information on the basic principles of the blueprint, lines, views, dimensioning procedures and notes. Prerequisite: None.

**DFT 1105 Blueprint Reading: Mechanical II** 0 0 3 1

Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes. Prerequisite: None.

**DFT 1106 Blueprint Reading: Mechanical III** 0 0 3 1

Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrication, construction and assembly. Prerequisite: None.

**DFT 1107 Blueprint Reading** 0 0 3 2

Interpretation and reading blueprints applicable to air conditioning, heating and refrigeration. Development of ability to read and interpret floor plans, elevations, sections, and details found on pictorial, perspective, isometric, oblique, and three-view drawings. Prerequisite: None.

**DFT 1110 Blueprint Reading** 0 0 3 1

Principles of interpreting blueprints and trade specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. Prerequisite: None.

**DFT 1111 Blueprint Reading** 0 0 3 1

Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, floor plans, elevations, walls, doors and windows, and roofs of buildings. Development of proficiency in making three view and pictorial sketches. Estimating from blueprints. Prerequisite: None.

**DFT 1112 Drafting I: Plumbing** 1 0 3 2

Review of blueprint reading, instruction in the selection, use and care of basic drafting instruments. Single stroke freehand lettering. Orthographic projection consisting of instruments and freehand sketching. Study of dimensioning and note practices with reference to the American Standard Association practices. Includes methods of reproducing drawings; detail, assembly, layout and pictorial drawings; specifications, parts list and bill of materials. Drawings of piping includes: metal pipe, tubing, plastic pipe, pipe joints, tube joints, pipe fittings, valves, specification of fittings, pipe threads, specification of threads, scale layout (two line drawing) and diagrammatic (single line) drawings. (Diagrammatic methods include orthographic, developed and pictorial.) Standard symbols, dimensioning of a pipe drawing, and pipe hangers and supports. Students work to include various problems of piping layout to scale. (Note — school will furnish drafting equipment.) Prerequisite: None.

**DFT 1113 Blueprint Reading: Electrical** 0 0 3 1

Interpretation of schematics diagrams and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial installations using appropriate symbols and notes according to the applicable codes. Prerequisite: None.

**DFT 1117 Blueprint Reading: Welding** 0 0 3 1

This course is a study of mechanical blueprints and sketches in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations, and specifications are emphasized. Prerequisite: DFT 1104.

**DFT 1121 Drafting I** 4 0 12 8

An introduction to drafting and the study of drafting practices. Instruction in the selection, use and care of instruments, singlestroke lettering, applied geometry,

freehand sketching consisting of orthographic and pictorial drawings. Emphasis on orthographic projection, reading and instrument drawing of principal views, single auxiliary views (primary), and double (oblique) auxiliary views. Study of dimensioning and note practices with reference to the American Standards Association practices. Methods of reproducing drawings included at the appropriate time. Prerequisite: None.

**DFT 1122 Drafting II** 4 0 12 8

Study of simple and successive revolutions and their application to practical problems. Study of section and conventions and drawing of both detail and assembly sections. Study of intersections and developments by relating the drawing to the sheet metal trades. Models of the assigned drawings to be made from construction paper, cardboard, or similar materials as a proof of the solution to the problems drawn. Study of methods of drawing and projecting axonometric, oblique, and perspective drawings with emphasis on the practical applications of pictorial drawings. Introduction of various methods of shading and performance of dimensioning and sectioning of oblique and axonometric pictorials. Prerequisite: DFT 1121.

**DFT 1125 Descriptive Geometry** 2 0 3 3

Graphical analysis of space problems. Problems to deal with practical design elements involving points, lines, planes, connectors, and a combination of these. Includes problems dealing with solid geometry theorems. Analytical as well as graphical solution wherever applicable. Prerequisite: DFT 1121.

**DFT 1141 Drafting III** 4 0 15 9

An introduction to architectural drafting. Further development of techniques in lettering, dimensioning, freehand sketching and instrument drawings. Drawings of construction details, using appropriate material symbols and conventions. Working drawings, including plans, elevations, sections, scale details and full-size details prepared from preliminary sketches. Prerequisite: DFT 1122.

**DFT 1142 Drafting IV** 4 0 15 9

Individual and group participation in the preparation of complete working drawings for a complex architectural structure. Study of drafting room organization and relationships of personnel within the architectural office. Prerequisites: DFT 1141, DFT 1143, DFT 1144.

**DFT 1143 Building Mechanical Equipment** 3 0 0 3

General study of heating, air conditioning, plumbing and electrical equipment, materials and symbols. Building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings by mechanical engineers. Prerequisite: DFT 1122.

**DFT 1144 Building Materials and Methods** 3 0 0 3

Study of materials used in the construction of architectural structures. Their economic values and limitations affected by locality, budget and codes. Field trips to construction sites and study of manufacturer's specifications for materials. Standard sizes of structural materials and modular construction techniques. Prerequisite: None.

**DFT 1150 Site Planning** 2 0 3 3

Introduction to factors influencing placement of buildings on sites. Specific analysis of sites in terms of solar, topographic, use and wind characteristics. Includes field work in surveying.

## ECONOMICS

### **ECO 102 Economics I**

**3 0 0 3**

A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

### **ECO 104 Economics II**

**3 0 0 3**

A further study into the function of the United States' economy as well as a look into world economics. A study of prices, competition, nonprice competition and income distribution in the United States. Includes a study of international trade and payments, economic development, and comparative economic systems. Prerequisite: ECO 102.

### **ECO 108 Consumer Economics**

**3 0 0 3**

Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources and to understand better the economy in which he lives. Prerequisite: None.

## EDUCATION

### **EDU 101 Child Growth and Development**

**6 0 0 6**

The study of the mental and physical growth of the child from birth through adolescence. Through a brief review of recent studies in child development, the student will gain knowledge of frequently used educational research methods and research terminology. Prerequisite: None.

### **EDU 102 Programs for Young Children**

**4 2 0 5**

A comparative study of traditional current and innovative preschool programs. The laboratory experience provides opportunities for the students to observe and record the growth and behavior of young children. Prerequisite: EDU 101.

### **EDU 103 Working with Young Children**

**4 0 10 5**

Case presentations, films observations, and group discussions are utilized to study characteristic behaviors of each level of development and to derive guidelines for promoting desirable behaviors and for coping with undesirable behaviors. Laboratory experiences will provide opportunities to develop observation skills, effective techniques, and beginning skill in adapting activities to the needs of individual children. Through coordination with PSY, theories from behavioral science are identified as the foundation of techniques for working with young children. Prerequisite: EDU 102.

### **EDU 104 Art for Young Children**

**3 0 0 3**

A study of the art of young children and the development of techniques of working with young children to encourage creative expression through a variety of media. Co-requisite: EDU 103.

### **EDU 105 Music and Creative Movement for Young Children**

**3 0 0 3**

An exploration of a wide variety of musical activities for young children with special emphasis on techniques of selecting activities appropriate to the age level and the individual needs of the children. Prerequisite: EDU 103.



**EDU 106    Activities for Young Children** **5    0    10    6**  
**Science and Mathematics**

Individual and group exploration of activities and materials for developing mathematics and science experiences for preschool children on which would permit the children to learn through manipulation, experimentation, and discovery. The laboratory experience provides opportunities to implement activities with children. Prerequisite: EDU 201.

**EDU 107    Communicating with Young Children** **3    2    0    4**

A course designed to improve the verbal and nonverbal communication of students working with small children in the child care centers. Special emphasis is on voice and diction improvement (pronunciation, articulation, audibility, rate, pitch, and usage) with extensive use of cassette and video-tape recordings. Emphasis is also placed upon developing a student's confidence in using a variety of audio-visual equipment (tape recorder, 16mm projector, filmstrip projector, record player, etc.) in preparation for a class activity such as telling or reading a story. Each student will be given a laboratory assignment for communication experiences with groups of small children. Prerequisite: ENG 100.

**EDU 108    Social Studies in Early Childhood** **3    0    0    3**

A study of the social studies phenomena that are of interest to young children. Classroom experiences will be designed to teach the student to use social studies as an integral component of the overall program for young children. Prerequisite: None.

**EDU 109    Physical Activities: Games for Young Children** **2    2    0    3**

An exploration of activities for promoting optimal overall physical development of young children, with special emphasis on body movements (exercise, dance, and games). The lab time is devoted to implementing games with children. Prerequisite: None.

**EDU 110    Instructional Media and Resources** **2    0    3    3**

Survey of media and appropriate learning materials for young children. A study of the role of instructional media and resources in teaching and learning, and sources of free an inexpensive material. Directed practicum time is used to construct and prepare appropriate teaching aids to use with children to help conceptual development. Prerequisites: EDU 101, EDU 102, EDU 103.

**EDU 112    Language Arts in Early Childhood** **3    0    0    3**

A comprehensive study of each facet of language arts with emphasis on techniques of designing activities and selecting materials to promote optimal overall development and to meet the specific needs of individual children. Prerequisite: None.

**EDU 113    Health and Safety for Young Children** **3    2    0    4**

A study to promote understanding of factors which influence physical and emotional health of infants and young children. Emphasis will be given to preventative measures such as designing a safe and stimulating outside play area. The course will embrace first aid techniques and allow for observation of children in play situations. The influence of child care workers on health and safety and on the teaching of health habits is emphasized. Prerequisite: None.

**EDU 202    Seminar-Co-op in Early Childhood** **5    0    10    6**

Experience in a variety of child care settings to develop further skill in working with young children, in assisting with programming activities, and in adapting to the needs of individual children. Analysis of individual problems encountered in working with specific age groups. Prerequisite: EDU 106.

**EDU 203 The Exceptional Child****3 2 0 4**

Study of children with developmental variations requiring modification in activities. Consideration is given to recognition of problems, community resources, and appropriate activities for the child with exceptional deviations in personality or physical development. Prerequisite: None.

**EDU 204 Parent Education****3 0 0 3**

Study of ways parents can be involved in the child development center, of the purpose and value of home visitation, and of techniques for reporting child progress to parents. The role of the early childhood specialist in aiding parents in guidance of the child's development is emphasized. Each student will develop a series of programs appropriate for presentation to the parents of preschool children. Prerequisite: EDU 103.

**EDU 206 Special Problems****3 0 0 3**

Directed study of a specialized area of early childhood appropriate to individual career interests of students. Prerequisite: EDU 202.

**EDU 211 Practice Teaching****4 0 20 6**

A study to give the student practice in the care of the young child. This course will give the student more experiences in directing pre-school activities. Students spend a major time block caring for and guiding young children. Opportunities to carry out planned units of study will be allowed the student in this quarter. Prerequisite: Successful completion of all practicums. Permission of Department Chairman.

**ELECTRICITY****ELC 101 Fundamentals of Electricity****5 2 6 8**

Elementary principles of electricity including basic electric units. Ohm's law, Kirchhoff's law, network, theorems, magnetics, inductance, capacitance, sine wave analysis, and nonresonant resistive, inductive and capacitive networks. Prerequisite: None.

**ELC 102 Fundamentals of Electricity II****5 2 6 8**

Series and parallel resonant-circuits analysis, resonant and non-resonant transformer analysis, basic diode power supply analysis, introduction to non-linear resistive control devices, and introduction to electromechanical devices. Prerequisites: ELC 101, and MAT 101.

**ELC 205 Applied Electricity****3 2 0 4**

Basic theories of electricity, types of electricity, methods of production and transmission and transforming of electricity, Electron theory, electricity by chemical action, electricity by friction, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage and transformers are major parts of the course. Prerequisite: PHY 112.

**ELC 110 Applied Electricity I****3 2 0 4**

A detailed study of basic DC circuits involving the structure of matter and electron theory as related to common conductors. Investigates the relationship of current, voltage, resistance, and power in the series, parallel and combination circuits. Also study of DC sources and methods of DC generation as well as the electromagnetic effect. Prerequisite: None.

**ELC 1111 Applied Electricity II** 3 2 0 4

Fundamental concepts of alternating current including a study of capacitive and inductive effects and resulting phase angle. A study of power, current, voltage and impedance in the AC circuit as applied to AC power machinery and control devices relating to heating and refrigeration systems. Prerequisite: None.

**ELC 1120 Direct and Alternating Current** 8 8 6 14

A study of the structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Analysis of direct current circuits by Ohm's law and Kirchhoff's law; sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance and alternating current circuit analysis. Prerequisite: None.

**ELC 1121 Electrical Installation Fundamentals** 5 0 15 10

This is an introduction to the field of electrical installation. Instruction will include a course overview, use of hand tools, wiring layouts, practice wiring, safety and the National Electrical Code. Prerequisite: None.

**ELC 1122 Residential Wiring I** 4 0 15 9

The techniques learned in ELC 1121 will be applied to actual wiring. Other subjects covered will include material take off, power tools and electrical calculations. The study of the electrical code will be continued. Prerequisite: ELC 1121.

**ELC 1123 Residential Wiring II** 5 0 15 10

This is a continuation of ELC 1122. Practice wiring will be continued. Other subjects covered will include interpretation of specifications, electrical contracts, switch gear, and electrical design. The study of the electrical code will be continued. Prerequisite: ELC 1122.

**ELC 1125 Commercial and Industrial Wiring** 6 0 15 11

Layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Prerequisite: ELC 1123.

**ELECTRONIC DATA PROCESSING (BUSINESS)**

**EDP 100 Introduction to Data Processing** 3 2 0 4

An introductory course for students in the data processing curriculum. A technical study of the history, terminology, equipment, and concepts of data processing. Laboratory exercises will be used to familiarize the student with data processing equipment and hypothetical programming languages. Prerequisite: None.

**EDP 101 Principles of Business Data Processing** 3 2 0 4

An introductory course designed to acquaint the student with the field of data processing. Includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

**EDP 102 Logic and Decision Making****5 0 0 5**

An introduction to symbolic logic and the application of logic to decision making and programming. Includes simple and compound logic statements, implications and equivalences, and flowcharting techniques. Laboratory exercises involving the development of truth tables and the translation of basic problems into flowcharts. Prerequisite: None.

**EDP 105 Assembly Language Programming I****5 2 0 6**

An introduction to the study of assembly language programming. Includes Assembly Language specifications, operations, and rules for writing source programs. Laboratory exercises devoted to developing program logic and writing Assembly Language programs to solve sample problems. Prerequisites: EDP 100, EDP 102. Co-requisite: MAT 111.

**EDP 106 Assembly Language Programming II****2 4 0 4**

A continuation of the study of Assembly Language programming. Covers more complex features of the language and more advanced programming techniques. Laboratory assignments devoted to developing program logic and writing Assembly Language programs to solve sample problems. Prerequisite: EDP 105.

**EDP 110 COBOL Programming I****3 2 0 4**

An introductory course in compiler language programming utilizing COBOL. Includes COBOL concept, components, structure, and basic instructions. Laboratory assignments stressing developing of program logic and writing COBOL programs to solve sample problems. Prerequisites: EDP 100, EDP 102. Prerequisite or Co-requisite: MAT 111.

**EDP 111 COBOL Programming II****2 4 0 4**

A continuation of the study of COBOL. Includes more complex COBOL instructions and techniques. Laboratory exercises involving developing program logic and writing programs to solve simulated industrial and business problems. Prerequisite: EDP 110.

**EDP 112 COBOL Programming III****2 4 0 4**

A continuation of the study of COBOL emphasizing the more complex features of the language, efficient programming techniques, and debugging techniques. Laboratory exercises involving developing program logic and writing programs to solve simulated business and industrial problems. Prerequisite: EDP 111.

**EDP 120 Introduction of Computer Program****3 2 0 4**

A non-technical introduction to the COBOL programming language. Emphasis will be placed on how COBOL is used in business to automate business procedures. Laboratory exercises will be used to develop COBOL programs that can solve business problems. Prerequisite: EDP 101.

**EDP 201 Computer Systems****3 2 0 4**

A study of computer systems involving such topics as job scheduling, file devices, file organization, operating systems, job control language, and multiprogramming. Prerequisite: EDP 105, EDP 110.

**EDP 205 Systems Design and Analysis I****3 2 0 4**

The first of two courses designed to give the student training in systems design and analysis. Emphasis in both classroom and laboratory work on problem definition, file organization, effective retrieval and manipulation of information, and systems design techniques. Prerequisite: EDP 111.



**EDP 206   Systems Design and Analysis II** 3   2   0   4

A continuation of Systems Design and Analysis I. Emphasizes the application of principles studied to data processing systems in the business enterprise. Prerequisite: EDP 205.

**EDP 210   Language Survey** 2   0   0   2

A survey and comparative study of various computer languages in current use. Stresses the evaluation of languages in terms of utilization in various business applications. Prerequisite: EDP 206.

**EDP 220   Research Project** 1   8   0   5

Individual assignments of a carefully selected project. Designed to give the student an opportunity to initiate and carry out a project. Places the responsibility upon the student to solve a significant problem with a minimum of assistance from the instructors. Prerequisite: EDP 206.

**EDP 230   Introduction to FORTRAN** 3   2   0   4

An introduction to FORTRAN, a problem-oriented language. Laboratory exercises devoted to the developing of program logic and writing programs using FORTRAN. Prerequisites: EDP 100, EDP 102, MAT 112.

**EDP 240   PL/I Programming I** 3   2   0   4

An introduction to PL/I programming. Includes basic PL/I concepts, components structure, and instructions. Laboratory assignments devoted to developing program logic and writing programs using PL/I. Prerequisites: EDP 100, EDP 102.

**EDP 250   RPG Programming** 3   2   0   4

An introduction to RPG programming. Laboratory exercises devoted to developing program logic and writing programs in RPG to solve simulated business problems. Prerequisites: EDP 100, EDP 102.

**ELECTRONICS**

**ELN 105   Control Devices** 5   2   6   8

The study of physical and electrical characteristics of a wide variety of semiconductor devices such as diodes, transistors and multilayer PN devices. Applications of a general nature are included. Prerequisites: ELC 102, MAT 102.

**ELN 205   Semiconductor Applications I** 5   2   6   8

A study in depth of the analysis and design of transistor circuits pertaining to amplifiers and oscillators. Equivalent circuit parameters are used in the design procedures. Prerequisites: ELN 105, MAT 103.

**ELN 210   Semiconductor Applications II** 5   0   6   7

This course is an extensive study of Linear Integrated circuits such as differential and operational amplifiers, regulators, timers and phase lock loops. Emphasis is placed on Op Amp applications. A design project may be included in the course. Prerequisite: ELN 205.

**ELN 218   Pulse, Logic and Digital Circuits** 5   0   6   7

The study of waveform analysis, integrators and differentiators, clippers and clampers, multivibrators, numbering systems, Boolean algebra, and logic gates. Prerequisite: MAT 103, and ELN 205.

**ELN 219 Digital Fundamentals****4 0 6 6**

The study of flip-flops, counters and registers, coders and decoders, multiplexers and demultiplexers, data displays, memories, arithmetic circuits, and their applications in digital systems. Prerequisite: ELN 218.

**ELN 235 Industrial Electronics****3 0 6 5**

Broad introduction to the use of industrial electro-mechanical and electronic circuits and mechanisms. Provides a basic understanding of various electrical transducers related to pressure, temperature, light, sound, and humidity; and how they can be applied to their associated circuitry with emphasis on applications. Prerequisite: ELN 205.

**ELN 245 Electronic Design Project****2 0 6 4**

The course is devoted entirely to the development, testing, and evaluation of an electronic design project, using all of the skills and knowledge which the student has acquired thus far. Research and development procedures are emphasized in developing a prototype model. Prerequisite: ELN 210.

**ELN 247 Electronic System Computers****4 0 6 6**

This course consists of a functional block diagram analysis of a micro-computer system currently used in industry. Classroom activity includes flow charting and the use of the instruction set in writing programs in machine language. The lab will provide practice in manipulating the hardware and software associated with such computers. Prerequisites: ELN 210, and ELN 219.

**ELN 1118 Industrial Electronics****3 0 3 4**

Basic theory, operating characteristics, and application of vacuum tubes such as: diodes, triodes, tetrodes, pentodes, and gaseous control tubes. An introduction to amplifiers using triodes, power supplies using diodes, and other basic applications. Prerequisite: None.

**ELN 1121 Vacuum Tubes and Circuits****4 4 3 7**

A course in vacuum tube theory. Areas covered in lecture and laboratory: construction and operation of diodes, triodes, tetrodes, pentodes, and other tube types. Analysis of basic circuits such as amplifiers, power supplies, and oscillators. Study of the superheterodyne receiver with an introduction to basic vacuum tube troubleshooting procedures. Prerequisite: ELC 1120.

**ELN 1122 Transistor Theory and Circuits****6 4 6 10**

A course in semiconductor theory. Devices to be studied: the diode, transistor, FET, Zener diode, SCR, UJT, and integrated circuits. Circuits studied in lecture and laboratory sessions: power supplies, tuned amplifiers, audio amplifiers, oscillators and detectors. An introduction to systems troubleshooting included. Prerequisite: ELC 1120.

**ELN 1123 Black and White Television Servicing****10 6 9 16**

A study of black and white television receivers. Detailed study of all circuits of the TV receiver in classroom and laboratory sessions. Supervised servicing practice to develop skills in using test equipment to repair and maintain television receivers. Prerequisites: ELN 1121, ELN 1122.

**ELN 1124 Color Television Servicing****10 8 9 17**

Theory of operation of the television circuits peculiar to color receivers. Includes composite color telecasting signals, color receiver detectors, kinescopes, convergence, and matrix networks. Theory of operations and practical test bench techniques including troubleshooting, alignment, and convergence. Prerequisite: ELN 1123.

## ENGLISH

### ENG 001 Spelling 3 0 0 0

The course in basic spelling will emphasize the relationship of symbols to their corresponding sounds. It will stress spelling rules, mnemonics, and techniques in the perceiving and retaining the memory for words as a configuration. Proofreading and dictionary use will also be utilized. During the first four weeks, the student will be required to spend 5 hours in the Learning Lab working with the tape recorder and tapes.

### ENG 005 Language Development 2 2 0 0

The first in a series of courses which concentrates on basic reading skills that enable a student to analyze words through phonetic word attack.

### ENG 006 Language Development II 2 2 0 0

A continuation and specialization in language skills.

### ENG 007 Language Development III 2 2 0 0

A continuation and specialization in language skills.

### ENG 008 Language Development IV 2 2 0 0

A continuation and specialization in language skills.

### ENG 010 Individualized English 5 0 0 0

Designed to reinforce the writing skills of those students who are not ready to attempt successfully the materials in ENG 101, this course enables the student to develop competency in flow of writing, sentence structure and punctuation, organization, diction and spelling, and grammar.

### ENG 021 Basic Reading Skills and Vocabulary I 3 0 0 0

This basic reading course is structured to enable a student who is experiencing decoding difficulties to improve his word attack skills. Dictionary usage, comprehension and vocabulary development will also be included.

### ENG 022 Basic Reading Skills and Vocabulary II 3 0 0 0

This course is designed to enable the student to develop the ability to analyze words and to increase his vocabulary. Major emphasis will be placed on developing comprehension skills to a level adequate to perform in his curriculum program. Prerequisite: Demonstrate a minimum proficiency in comprehension and word attack skills as determined by the Departmental Test Battery or the CGP cut-off scores.

### ENG 100 Oral Communication 3 0 0 3

English 100 is a beginning course stressing the ability to communicate with others and to understand others. The course deals with the basic concepts and principles of oral communications. Emphasis is placed on the speaker's attitude, diction, voice, speaking habits, and the application of these in oral reports, speeches, and discussions. Prerequisite: None.

### ENG 101 Introduction to Written Communication 3 0 0 3

This course is an introduction to composition which stresses written communication but includes some work on reading, vocabulary, and speech. Readings on subjects of current interest serve as springboards for compositions and speeches. Related vocabulary and helpful spelling and grammar concepts are also included. Prerequisite: Satisfactory score on English placement test or passing grade in English 010.

### ENG 102 Composition 3 0 0 3

This course is a continuation of ENG 101, including further work in reading, vocabulary, spelling, grammar, and composition. Reading provides vocabulary and spelling words,

and subjects for compositions which enable the student to refine his writing. A unit on conference provides further development in oral communication. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing**

3 0 0 3

The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to the student's chosen curriculum. Prerequisite: ENG 102.

**ENG 115 Appreciation of Literature**

3 0 0 3

The student will sample the literary genres of prose and poetry drawn from varied cultures and periods. He will analyze different styles and techniques of writing used in some of the masterpieces of literature. Prerequisite: None.

**ENG 116 Children's Literature**

3 0 0 3

A survey of literature for young children. The student will gain an appreciation and awareness of a variety of types of literature to be presented to the child during the pre-school years. Prerequisite: EDU 201.

**ENG 205 Business Report Writing**

3 0 0 3

The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are the major contents of the course. Memoranda, press releases, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

**ENG 206 Business Communications**

3 0 0 3

This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application, and other specific types of business letters. Prerequisite: ENG 102.

**ENG 207 Educational Report Writing**

3 0 0 3

A written communication course stressing business letters, memos, reports, and employment interviewing. Special emphasis will be on types of communication written in child care centers: anecdotal records, school newsletters, progress letters and reports, request letters for conferences, accident reports, press releases, etc. In conjunction with the summer quarter courses (EDU 112 and EDU 110), each student will prepare a report on teacher-made materials as a project for both the English and education courses. Prerequisites: ENG 102, EDU 101, EDU 102, EDU 103.

**ENG 1101 Communications I**

3 0 0 3

A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II**

3 0 0 3

A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.



## HEALTH

### HEA 101 Personal Hygiene and Health 3 0 0 3

Study of influences on physical and mental health, individual practices which aid in maintaining good physical and mental health throughout the life span and responsibilities of those working with young children to maintain personal health and to serve as models for health practices. Prerequisite: None.

### HEA 116 Fundamentals of Patient Care 2 0 0 2

The student gains knowledge and understanding of some of the basic and special needs of the hospitalized individual. Classroom, along with clinical experiences teach the student to apply scientific principles as he utilizes his professional skills in meeting a patient's basic and special needs. Prerequisite: None.

### HEA 149 General Pharmacology 3 0 0 3

The course will provide the student with a working knowledge of pharmacological effects, side effects, contraindications, and use of drugs. Sterile preparation and the use of pharmacological measuring systems in preparing drugs will also be covered. Prerequisite: None.

## HEATING

### HET 1101 Heating Systems 6 0 15 11

Oil burner fundamentals. Operation, control and service of oil burner systems. Gas heating devices. Operation, control and service of gas burner systems. Installation and servicing electric heating elements and their controls. Principle of operation of hot water and low pressure systems. Installation and servicing of piping, controls, pumps and coils. Prerequisite: AHR 1105.

## HISTORY

### HIS 111 American History 3 0 0 3

In this course the student will survey the development of America from its old world background to the present. Emphasis is placed on major economic, political, and social forces which have contributed to building of American culture. Prerequisite: None.

## INDUSTRIAL

### ISC 101 Introduction to Occupational Safety and Health 4 0 0 4

An introduction to the principles of occupational safety and health and the hazards faced by persons employed in industrial plants. A survey course covering record-keeping requirements, first aid, and key man development, preparing potential management and supervisory personnel for certificates in these areas. Prerequisite: None.

### ISC 201 Industrial Organization and Mangement 3 0 0 3

A survey of the history of modern management and of the various functions which the manager of a modern industrial enterprise must perform. A study of the various departments which assist the manager in carrying out his responsibilities. Prerequisite: None.

**ISC 202 Quality Control****3 2 0 4**

A study of the principles and techniques of quality control and cost saving; organization and procedure for efficient quality control; functions, responsibilities, structures, costs, reports, records, personnel and vendor-customer relationships in quality control; sampling inspections, process control, and tests for significance. Prerequisite: None.

**ISC 203 Motion and Time Study****3 2 0 4**

Studies include the following: operations analysis, types of process charts, breakeven analysis, micromotion analysis, work measurement techniques, predetermined time systems (MTM) and development of standard data for incentive systems. Prerequisite: None.

**ISC 209 Plant Layout****3 2 0 4**

A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Layouts for small and medium-sized plants; layout fundamentals; selection of production equipment and materials handling equipment; and the effective management of men, money, and materials in a manufacturing operation are also studied. Prerequisite: None.

## MATHEMATICS

**MAT 001 Structure of Arithmetic****5 0 0 0**

This course is designed to help the student gain and improve his computational skills. Instruction is in the basic operations of arithmetic to include addition, subtraction, multiplication, division, fractions, decimals, and percentages.

**MAT 002 Pre-Business Mathematics****5 0 0 0**

This course is a review and reinforcement of the basic mathematical skills used in business mathematics.

**MAT 003 Algebra****5 0 0 0**

A course designed to provide the student with the basic understandings and manipulative skills of elementary algebra.

**MAT 004 Pre-Technical Mathematics****5 0 0 0**

This course is designed for those students who have had some previous instruction in algebra and geometry. Basic concepts of algebra and trigonometry are covered. It includes the properties of the real number system, equations, functions, variables and exponents.

**MAT 005 Geometry****5 0 0 0**

A course designed to provide the student with the basic understandings and manipulative skills of elementary geometry.

**MAT 020 Mathematics for Health Education****3 0 0 0**

The course is designed to help the student gain and improve his computational skills. Instruction is in the basic operations of arithmetic including addition, subtraction, multiplication, division, fractions, decimals, and percentages. It will also include simple algebraic equations, powers of 10, metric units, apothecary system, and mathematics of drugs and solutions.

**MAT 100 Mathematics for Nursing Education** 3 0 0 3

A course in mathematics designed for students who are preparing themselves for a career in nursing. Topics covered are: whole numbers, common fractions, decimal fractions, percents, ratio and proportion, metric and apothecary systems of measurements, and mathematics of drugs and solutions. Prerequisite: None.

**MAT 101 Technical Mathematics I** 5 0 0 5

A course in mathematics designed to support all technology courses. In scope, the course consists of a short review of the basic fundamentals of algebra; the use of the standard (log log) engineer's slide rule; functions and graphs, trigonometric functions; linear equations and determinants; factoring and fractions; solution of quadratic equations; trigonometric functions of any angle or number; exponents and radicals; and the j-operators. Prerequisite: Satisfactory score on mathematics placement test or passing grade in Pre-Technical Mathematics.

**MAT 102 Technical Mathematics II** 5 0 0 5

A course in mathematics designed to support all technology courses. In scope, the course consists of vectors and oblique triangles, graphs of trigonometric functions, logarithms, solutions of algebraic and trigonometric equations, inequalities, progressions and advanced topics in trigonometry. Prerequisite: MAT 101.

**MAT 103 Technical Mathematics III** 5 0 0 5

A course in mathematics designed to support the technology course. The student is introduced to the fundamental concepts of analytic geometry, differential and integral calculus. In scope, the course covers the straight line, limits, the geometric and algebraic interpretation of the derivation, applications of the derivate, tangents and normals, curvilinear motion, related rates, curve sketching, maximum and minimum, integration and applications (area and volume). Prerequisite: MAT 102.

**MAT 111 EDP Mathematics I** 5 0 0 5

A course of study in basic mathematical concepts which includes numbering systems and basic modern mathematics. All topics stressed within the framework of application to data processing. Prerequisite: None.

**MAT 112 EDP Mathematics II** 5 0 0 5

A continuation of EDP Mathematics I. Includes equations, linear and nonlinear functions, simultaneous equations, and matrices. Stresses practical application of data processing problems. Prerequisite: MAT 111.

**MAT 113 Allied Health Mathematics I** 3 0 0 3

The first of a series of two courses designed to develop and maintain a high level of proficiency in basic mathematical skills and unit of measurement and to apply this knowledge to problems dealing with patient care. Topics covered are: fundamental facts about whole numbers; fractions; percents; expanded notation; positive and negative numbers; functions and graphs; trigonometric functions; and linear equations. Prerequisite: None.

**MAT 114 Allied Health Mathematics II** 3 0 0 3

The second of a series of two courses designed to develop and maintain a high level of proficiency in basic mathematical skills. Topics covered are: quadratic equations; exponents and radicals; logarithms; ratio and proportion; metric and apothecary system of measurement; mathematics of drugs and solutions; and basic statistics. Prerequisite: MAT 113.

**MAT 115 Fundamental Concepts of Mathematics 3 0 0 3**

A general review of fundamental mathematics with special emphasis on applications peculiar to the field of law enforcement. Topics studied are: formulas, ratio and proportion, percentage, right angle trigonometry, graphing, metric units. Prerequisite: None.

**MAT 116 Fundamental Concepts of Statistics 5 0 0 5**

A course in statistics designed to support all technology courses. In scope, the course consists of frequency distribution, graphic representation, percentiles, measures of central tendency, variability, the normal distribution curve, sampling error, significance of difference between means, correlation, statistics and the design of experiment, and chi-square.

**MAT 160 Engineering Computations 1 0 3 2**

A practical course in using calculation devices. Included: slide rule review, use of a programmable electronic calculator, and an introduction to computers. Emphasis is on programming as a mathematical tool. Prerequisite: MAT 102.

**MAT 201 Technical Mathematics IV 5 0 0 5**

A course in mathematics designed to support the Electronics Technology course at Forsyth Technical Institute. In scope, the course is a continuation and extension of this school's MAT 103. More advanced concepts of differentiation and integration are covered; additional applications of these concepts and techniques; the maclaurin series; certain operation with series and computations by use of series expansions.

**MAT 208 Calculus for Electronics 5 0 0 5**

Derivation of mathematical equations applied to Electronics. Average, RMS, harmonic content of sinusoidal and complex waveforms; transfer functions as applied to coupling networks, filters, and attenuators. Prerequisite: MAT 201.

**MAT 1101 Fundamentals of Mathematics 5 0 0 5**

Practical number theory, analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Prerequisite: None.

**MAT 1102 Algebra 5 0 0 5**

Basic concepts and operations of algebra: historical background of our base — 10 number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping factoring, ratio and proportions, variations, graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing, exponents, logarithms, tables and interpolation. Prerequisite: None.

**MAT 1103 Geometry 3 0 0 3**

Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometry construction of lines, angles and plane figures. Areas of plane figures, volume of solids. Geometric principles applied to shop operations. Prerequisite: None.

**MAT 1104 Trigonometry 3 0 0 3**

Trigonometric ratios, solving problems with right triangles, using tables and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics applied to practical problems. Prerequisite: MAT 1102.



**MAT 1113 Carpenter's Mathematics and Estimating** 5 0 0 5

Practical problems which the carpenter must frequently solve. Emphasis upon any weaknesses in the basic mathematical operations with instruction and practice of the needed operation. Problems involving common fractions, decimals, power and roots, percentages, and ratio and proportion.

**MAT 1114 Carpenter's Mathematics and Estimating** 3 0 0 3

A continuation of MAT 1113 including problems dealing with plane and solid geometric figures and the measurement of surfaces and volumes. An introduction to algebra used in the trade. Basic estimating practices for building materials. Prerequisite: MAT 113 or equivalent.

**MAT 1115 Elements of Mathematics** 5 0 0 5

A course designed for the radio-TV program to include: review of arithmetic, powers of ten, elementary algebra, trigonometry, vectors, and logarithms. Prerequisite: None.

**MAT 1117 Plumber's Arithmetic** 4 0 0 4

Composed primarily of practical problems which the plumber must frequently solve. Emphasis upon instruction and practice in areas of deficiency in basic mathematics. Use of problems involving common fractions, decimals, and percentages. Prerequisite: None.

**MAT 1150 Printer's Mathematics** 5 0 0 5

This course deals with the printer's point system as it applies to type spaces, furniture, and other spacing materials as well as problems in spacing outlines and centering heads. Instruction and practice will be given in reading a micrometer. Problems in cutting paper economically and in figuring the amount, and problems dealing with measuring the thickness of papers and offset plates will be used. Prerequisite: None.

## MECHANICAL (MACHINE)

**MEC 001 Introduction to Engineering Technology** 2 0 0 0

A course designed to expose the student to the fields of engineering and the various functions that exist, i.e. research, development, design, production, construction and sales and to give him exposure to his professional environment. The role of the engineering technician is identified and future employment possibilities are investigated. Prerequisite: None.

**MEC 101 Machine Process I** 1 0 6 3

An introductory course designed to acquaint the student with basic hand tools, safety procedures and machine processes in our modern industry. Will include a study of measuring instruments, characteristics of metals and cutting tools. Will familiarize student with the lathe family of the machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. Prerequisite: None.

**MEC 102 Machine Processes II** 1 0 6 3

Advanced operations on lathe, drilling, boring, and reaming machines. Milling machine theory and practice. Study of the types of milling machines, cutter, jig and fixture devices and the accessories used in a modern industrial plant. Safety in the shop is stressed. Prerequisite: MEC 101.

**MEC 104 Applied Mechanics** 5 0 0 5

Concepts and principles of statics. Parallel, concurrent and non-current force systems in coplanar and noncoplanar situations. Concepts of centroids and center of gravity, moments of inertia. Prerequisites: MAT 103, PHY 111.

**MEC 192 Orientation to Manufacturing Engineering Technology**

1 0 0 1

This course is for the purpose of introducing the beginning student in Manufacturing Engineering Technology to the type of work that he may be doing upon graduation, the general nature of the courses that he will be taking, as well as allowing him to communicate his feelings and ideas about his studies and/or other problems that he may have. The general conduct of the class should be flexible to encourage the students to bring forth their own ideas and views, rather than just to relate facts and perhaps dry statistics. Prerequisite: None.

**MEC 201 Manufacturing Processes I**

1 0 6 3

Newer concepts of work handling and automatic machining processes. Chipless production and new techniques in metal forming. Analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling; numerical control systems and production methods in manufacturing. Prerequisite: MEC 102.

**MEC 202 Manufacturing Processes II**

2 0 6 4

Emphasizes newer concepts of work handling and automatic machining processes. Concentrated study of production methods in manufacturing. Prerequisite: MEC 201.

**MEC 203 Welding Processes**

2 0 3 3

A basic study of all popular welding processes. Includes basic gas welding, basic arc, M.I.G., T.I.G., automatic flame cutting and process application. Operation of each process to a limited extent required. Prerequisite: None.

**MEC 205 Strength of Materials**

3 2 0 4

Study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying and dynamic. Analyses of these stresses made as applied to riveted and welded joints, beams, columns and other components. Prerequisite: MEC 104.

**MEC 206 Process Analysis and Estimating**

3 4 0 5

Process planning of operation sequence for efficient production, tool planning, estimating, laboratory operation of machine tools in production projects.

**MEC 210 Ferrous Metallurgy**

3 0 3 4

This course is a beginning course in the field of Metallurgy. The first quarter is concerned with the extraction, characteristics, and uses of ferrous metals. An opportunity for the student to use basic metallurgical equipment is presented during the laboratory part of the course. Prerequisite: PHY 112.

**MEC 211 Non-Ferrous Metallurgy and Heat Treatment**

3 0 3 4

This course is a continuation of MEC 210, Ferrous Metallurgy. It introduces more advanced concepts in the heat treatment of steels as well as alloy steels and tool steels. Study is also undertaken of the cast irons, the non-ferrous metals and the reaction of metals to high temperatures, corrosion and wear conditions. More stress is given to current literature in the field, laboratory techniques and more individualized learning situations. Prerequisite: MEC 210.

**MEC 213 Production Planning**

4 0 0 4

Day to day plant direction, forecasting, product planning and control, scheduling dispatching, routing and inventory control. Case histories are discussed in the classroom, and courses of corrective action are developed. Prerequisite: ISC 201.

**MEC 230 Plant Services** 3 2 0 4

The major areas covered include air conditioning theory and design, air compressors, boilers and steam piping systems, water treatment, waste treatment and pollution control, and analysis of fuel systems. Prerequisite: None.

**MEC 235 Fluid Power** 3 0 3 4

The basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electro-hydraulic servomechanisms, plumbing, filtration, accumulators and reservoirs. Prerequisite: PHY 111, MAT 103.

**MEC 237 Control Systems** 3 2 0 4

Basic principles of electrical, electronic and pneumatic control systems as related to industrial application. Basic design and functions of circuits, motors, transducers, and servomechanisms. Review of the National Electrical Code. Prerequisite: ELC 205.

**MEC 1101 Machine Shop Theory and Practice I** 3 0 12 7

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care and use of basic hand tools and precision measuring instruments. Elementary layout procedures and processes of lathe, drill press, grinding (off-hand) and milling machines introduced both in theory and practice. Prerequisite: None.

**MEC 1102 Machine Shop Theory and Practice II** 3 0 12 7

Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, milling machine shaper. Will be introduced to the basic operations of the cylindrical grinder and select projects encompassing all the operations, tools and procedures thus far used and those to be stressed through the course. Prerequisite: None.

**MEC 1103 Machine Shop Theory and Practice III** 3 0 12 7

Advanced work on the engine lathe, turning, boring and threading machines, grinders, milling machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting and measuring of spur, helical, and worn gears and wheels. Use of precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises given on the turret lathe and on the tool and cutter grinder. Prerequisite: None.

**MEC 1104 Machine Shop Theory and Practice IV** 4 0 15 9

Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspection. Additional processes on the turret lathe, tool and cutting grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Special procedures and operations, processes and equipment, observing safety procedures faithfully and establishing of good work habits and attitudes acceptable to the industry. Prerequisite: None.

**MEC 1112 Machine Shop Processes** 1 0 3 2

To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operations; hand grinding of drill bits and lathe tools; set-up work applied to the trade. Prerequisite: None.

**MEC 1113 Shop Processes** 2 0 3 3

Study of practices used in metalworking shops; introduction to how materials can be utilized, and to the processes of shaping, forming and fabricating of metals. Demonstra-

tion of the metalworking lathes, grinders, drills, milling machines, shapers, planers, saws, broachers, gear cutting machines and finishing machines. A study of capabilities of these machines. Prerequisite: None.

**MEC 1114 Shop Processes**

2 0 3 3

Comparison of the unit-production and mass-production systems. Casting, forging and allied processes, welding and sheet metal working processes demonstrated and discussed. Mass-production methods studied in relationship to precision dimensional control. Prerequisite: None.

**MEC 1115 Treatment of Ferrous Metals**

2 0 3 3

Investigates the properties of ferrous metals and tests to determine their uses. Will include some chemical metallurgy to provide a background for the understanding of the physical changes and causes of these changes in metals. Topics for study: physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron. Prerequisite: None.

**MEC 1116 Treatment of Non-Ferrous Metals**

2 0 3 3

Continuation of the study of physical metallurgy. Study of the non-ferrous metals; bearing metals (brass, bronze, lead) light metals (aluminum and magnesium) and copper and its alloys. Powder metallurgy, titanium, zirconium, indium and vanadium included in this course. Prerequisite: None.

**MEC 1120 Machine Processes**

1 0 6 3

Study of practices used in metalworking shops: introduction to how materials can be utilized. Demonstration of the metalworking lathes, drills, milling machines, shapers, and a study of the capabilities of these machines. Prerequisite: None.

## NUCLEAR MEDICINE

**NMT 101 Nuclear Medicine Technology I**

1 0 0 1

This course is designed to provide the students with a general introduction to the field of Nuclear Medicine Technology. The areas of special emphasis are the history of nuclear medicine, a definition of nuclear medicine, medical ethics, and radiation. Prerequisite: None.

**NMT 102 Nuclear Medicine Technology II**

1 0 0 1

This course will introduce the students to the In Vitro category of nuclear medicine. Primary emphasis will be on terminology, the characteristics of tracer radioisotopes, and the nature of competitive protein binding assays and radioimmunoassays. Prerequisite: NMT 101.

**NMT 103 Nuclear Medicine Technology III**

2 2 0 3

This course will introduce the students to the subjects of radiopharmaceuticals and instrumentation. The areas of primary emphasis will be the physical characteristics of radiopharmaceuticals, the production of radiopharmaceuticals, the radioactive nature of radiopharmaceuticals, the identification of instrument systems and their major components, the basic operating procedure, and terminology. Prerequisite: NMT 102.

**NMT 104 Nuclear Medicine Technology IV**

2 2 0 3

This course completes the students' introduction to nuclear medicine technology. The areas of primary emphasis are the rationale and mechanics of In Vitro nuclear medicine procedures, patient care, and medical ethics. Prerequisite: NMT 103.



**NMT 111 Principles of Nuclear Medicine I** 2 0 9 5

This is an introductory course in clinical nuclear medicine. All major clinical nuclear medicine procedures will be introduced. Prerequisite: None.

**NMT 116 Nuclear Physics** 2 0 0 2

Nuclear decay schemes and more complicated concepts of radioactive decay are discussed. Interactions of radiation with matter and the calculation and measurement of radiation doses are included. Prerequisite: PHY 102.

**NMT 117 Health Physics** 1 0 0 1

Protective regulations, monitoring methods, and techniques for reducing exposure of patients and technologists, as well as Nuclear Regulatory Commission and N.C. Radiation Protection Programs requirements, will be studied. Prerequisite: None.

**NMT 129 Practicum I** 0 6 24 11

Directed clinical learning experiences in special areas of the nuclear medicine laboratory. Radionuclide generators, radiation safety, and management and administration of nuclear medicine department will be presented in lecture series. Prerequisite: NMT 103, NUR 3008.

**NMT 221 Principles of Nuclear Medicine II** 2 0 0 2

This course will cover in detail the clinical procedure in Nuclear Medicine pertaining to the thyroid, parathyroid and gastrointestinal tract. Prerequisite: NMT 111.

**NMT 223 Radiopharmaceuticals** 2 0 0 2

Students will receive classroom instruction related to radiopharmacy functions, production of radionuclides and radiopharmacy mathematics. Prerequisite: None.

**NMT 230 Nuclear Medicine Instrumentation** 3 2 0 4

The basic theory concerning interaction of radiation in gases, liquids, and solids, and the application of this and radiation detectors (ion counters, G.M. Counters, scintillation counters) are presented. Emphasis is placed upon solid scintillation detectors, amplifiers, spectrometers, ratemeter and scalars. Prerequisite: NMT 116.

**NMT 231 Principles of Nuclear Medicine III** 2 0 0 2

This course pertains to the cardiovascular central nervous system and pulmonary system. Prerequisite: NMT 221.

**NMT 233 Radiopharmaceuticals** 2 0 0 2

Students will receive instructions related to preparation and quality control of radiopharmaceuticals, radiopharmacology and radiopharmacy health physics. Prerequisite: NMT 223.

**NMT 240 Nuclear Medicine Instrumentation II** 3 2 0 4

Students will study in detail the design and use of specific instruments utilized in clinical nuclear medicine. Prerequisite: NMT 230.

**NMT 241 Principles of Nuclear Medicine IV** 2 0 0 2

This course pertains to the genitro-urinary system, placenta, osseous system, and hematopoietic system. Prerequisite: NMT 231.

**NMT 257 Introduction to In Vitro Nuclear Medicine** 4 2 0 5

This course is designed to provide the students with indepth knowledge and skill in the category of In Vitro nuclear medicine procedures. The areas of primary emphasis are: the specialized laboratory skills required, terminology review of basic chemical interactions, selected areas of biochemistry, competitive protein binding assays (radio-immunoassays) and quality control. Prerequisites: CHM 104, NMT 102, and NMT 240.

- |   |          |          |           |           |
|---|----------|----------|-----------|-----------|
| <b>NMT 268 Open Lab Practicum I</b>   | <b>0</b> | <b>0</b> | <b>6</b>  | <b>2</b>  |
| Clinical experience in NMT 269 as conducted under evening and weekend emergency conditions. Prerequisite: None.   |          |          |           |           |
| <b>NMT 269 Practicum II</b>   | <b>0</b> | <b>6</b> | <b>24</b> | <b>11</b> |
| Practical experience in a clinical setting with emphasis on scanning. Radiation protection practices and routine quality control of the instruments will be observed and used. Prerequisite: NMT 129, NUR 3008.   |          |          |           |           |
| <b>NMT 273 Open Lab Practicum II</b>  | <b>0</b> | <b>0</b> | <b>6</b>  | <b>2</b>  |
| Clinical experience in NMT 274 as conducted under evening and weekend emergency conditions with more emphasis on student participation in the clinical procedures and patient contact. Prerequisite: NMT 268.   |          |          |           |           |
| <b>NMT 274 Practicum III</b>  | <b>0</b> | <b>6</b> | <b>24</b> | <b>11</b> |
| Practical experience in a clinical setting, with emphasis on the more advanced applications in nuclear medicine procedures. Preparation and use of radiopharmaceuticals; preparation of the patient for such studies as bone and 67GA. Prerequisite: NMT 269, NUR 3008.   |          |          |           |           |
| <b>NMT 278 Open Lab Practicum III</b>   | <b>0</b> | <b>0</b> | <b>6</b>  | <b>2</b>  |
| Clinical experience in NMT 274 as conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 273.   |          |          |           |           |
| <b>NMT 279 Practicum IV</b>   | <b>0</b> | <b>6</b> | <b>24</b> | <b>11</b> |
| Practical experience in a clinical setting, with emphasis on <i>in-vitro</i> procedures and therapeutic use of radionuclides. This course will also relate all theory presented during the first three quarters of practicums. Prerequisite: NMT 274, NUR 3008.   |          |          |           |           |
| <b>NMT 283 Open Lab Practicum IV</b>  | <b>0</b> | <b>0</b> | <b>6</b>  | <b>2</b>  |
| Clinical experience in NMT 278 as conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 278.   |          |          |           |           |
| <b>NMT 284 Practicum V</b>  | <b>0</b> | <b>6</b> | <b>24</b> | <b>11</b> |
| A more detailed study in the design and use of specific instruments utilized in clinical nuclear medicine. Emphasis will be placed on the performance of more advanced studies in <i>in-vitro</i> and <i>in-vivo</i> procedures employing radioisotopes and practical therapeutic use of radionuclides. Prerequisite: NMT 279, NUR 3008.                |          |          |           |           |
| <b>NMT 289 Radiobiology</b>   | <b>2</b> | <b>0</b> | <b>0</b>  | <b>2</b>  |
| This is a course in which the fundamentals of radiobiology, a system's sensitivity to radiation (normal and neoplastic) radiation pathology, and the biological effects on radiation are stressed with emphasis placed upon the effects of radiation and the effects of radiation absorption on tissue and tissue recovery rate. Prerequisite: NMT 116. |          |          |           |           |
| <b>NMT 290 Nuclear Medicine Technology Seminar</b>  | <b>2</b> | <b>0</b> | <b>0</b>  | <b>2</b>  |
| This course gives the student an opportunity to review any aspects of nuclear medicine technology in which he has special interest. Guest speakers will be invited to present papers on special topics. Prerequisite: NMT 279.  |          |          |           |           |

## NURSING

**NUR 111 Nursing I****4 2 0 5**

Provides the students an orientation to the field of health and the normal basic needs of man. Explores the events which have influenced the practice of nursing, the role of the nurse, and the way in which community provides health services. Utilizes knowledge of basic needs in developing beginning skill in meeting the basic needs of man. Taught concurrently with Nursing 112. Prerequisite: None.

**NUR 112 Clinical Practice I****0 0 9 3**

NUR 112 is taught concurrently with NUR 111. It provides an opportunity for the student to practice the beginning skills in nursing measures taught in NUR 111 which promotes physical and psychological comfort. Both the laboratory and the hospital clinical units will be used for practicum experience. Prerequisite: None.

**NUR 113 Nursing II****5 2 0 6**

Designed to allow the student to progress from what is already known to increased knowledge of man's basic needs. Content will involve scientific principles of food metabolism, function of food elements, factors influencing diet, fluid intake and the need for elimination. Taught concurrently with Nursing 114. Prerequisites: NUR 111 and 112, MAT 100, and BIO 107.

**NUR 114 Clinical Practice II****0 0 9 3**

Nursing 114 is taught concurrently with Nursing 113. It provides an opportunity for the student to continue to develop beginning nursing skills which promote physical and psychological comfort. Clinical units will be used for practicum experiences. Prerequisites: NUR 111 and 112, MAT 100, and BIO 107.

**NUR 115 Nursing III****6 0 0 6**

This course will focus on man's need for oxygen, communication, self-esteem. Course will include factors basic to maintaining an adequate oxygen supply to all body cells and identifying signs and symptoms indicating a need for oxygen. It will explore various methods of administration of oxygen. The focus on needs for communication is person to person, nurse-patient and involves the beginning use of nursing care plans for communication with the team based on scientific principles. Self-esteem, as a need is approached from the normal and is applied by adaptation of nursing intervention to support the component of self-esteem, while recognizing our own feelings that are influencing the perspectives. Taught concurrently with Nursing 116. Prerequisites: NUR 113 and 114, BIO 108.

**NUR 116 Clinical Practice III****0 0 12 4**

NUR 116 is taught concurrently with NUR 115. It provides an opportunity for the student to practice skills in nursing measures taught in NUR 115, which focuses on three basic needs of man, the need for oxygen, communication and self-esteem. Both laboratory and the hospital clinical units will be used for practicum experience. Prerequisites: NUR 113 and 114, BIO 108.

**NUR 117 Nursing IV****4 0 0 4**

This course is designed for the purpose of the student to increase concentration on the basic needs of man. Utilizing the basis of known normal needs as are inherent in physical and emotional health problems will be considered in developing nursing care. The health problems in this country will be scrutinized from the standpoint of physical-mental illnesses. Specific mental health concepts are introduced in assessing health problems with medical-surgical origin through the use of psychodynamic process and the integration of psychosocial concepts, treatment, and nursing care. Taught concurrently with Nursing 118. Prerequisites: NUR 115 and 116.

**NUR 118 Clinical Practice IV****0 0 15 5**

NUR 118 is taught concurrently with NUR 117. It provides an opportunity for the student to practice skills in nursing measures taught in NUR 117 which focuses on utilizing the basis of known normal needs to develop nursing care relating to community health problems, psychosocial difficulties, psychosomatic illnesses, and metabolic disorders. Both laboratory and hospital clinical units will be used for practicum experience. Mental Health Clinics will also be used. Prerequisites: NUR 115 and 116, and BIO 111.

**NUR 210 Nursing V****5 0 0 5**

Emphasis will be on family-centered care. Theories of pregnancy, child birth, and child-family relationships will be presented. Common disease conditions that occur in childhood and adolescence will be discussed as well as normal and abnormal conditions of pregnancy. Attention will be given to planning for meeting the health needs of parents and children. Taught concurrently with NUR 211. Prerequisites: NUR 117, NUR 118, and PSY 110.

**NUR 211 Clinical Practice V****0 0 18 6**

NUR 211 is taught concurrently with NUR 210. It provides an opportunity for the student to apply scientific principles of nursing care during pregnancy, childbirth, and in family-child relationships. The student will have interaction with the maternity patient, family, and sick child. Care for the maternity patient and sick child will be learned in clinics, hospitals, and doctor's offices. Planning for and meeting the health needs of parents and children will be the center of attention throughout the course. Prerequisites: NUR 117, NUR 118, and PSY 110.

**NUR 212 Nursing VI****5 0 0 5**

This course is designed to study the nursing needs of the person with increasingly complex conditions of the heart and vascular system, upper gastro intestinal system, neurological disorders, and burns. Integrated throughout the course are the areas of anatomy and physiology, diet therapy, pharmacology, emergency treatment, rehabilitation, community resources, and the psycho social aspects of caring for selected patients. Prerequisite: NUR 117, NUR 118, and PSY 110.

**NUR 213 Clinical Practice VI****0 0 18 6**

Nursing 213 is designed to be taught concurrently with Nursing 212. It provides an opportunity for the student to practice advanced skills in nursing which deal with physical-mental problems of an increasingly complex nature. Both specialty units and general hospital units will be used for practicum experience. Prerequisites: NUR 117, NUR 118, and PSY 110.

**NUR 214 Nursing VII****4 0 0 4**

This course provides the student an opportunity to explore the nurse's role in utilizing advanced skills in the assessment, planning, and administration of care to reverse serious alterations of basic need. The focus is primarily on medical-surgical and psychiatric nursing. Taught concurrently with Nursing 215. Prerequisites: NUR 212 and 213.

**NUR 215 Clinical Practice VII****0 0 24 8**

This course provides an opportunity for students to provide total care for individuals with acute and serious physical-mental health problems. There is emphasis on utilization of advanced skills in the assessment, planning and administration of nursing care. Experiences are selected from the areas of medical-surgical and psychiatric nursing. Taught concurrently with NUR 214. Prerequisites: NUR 212 and 213.



**NUR 3008 Cardiopulmonary Resuscitation (CPR)**

This is a 12 hour course teaching the proper and up-to-date techniques of the method of cardio-pulmonary resuscitation. Course includes classroom and lab learning techniques. Prerequisite: None.

**NUTRITION****NUT 001 Basic Nutrition****3 0 0 0**

The study of basic nutrition with emphasis on functions and sources of nutrients needed for a balanced daily diet. An overview of basic food elements, digestion, absorption and metabolism.

**NUT 101 General Nutrition****3 0 0 3**

Basic principles of human nutrition with emphasis on the nutrients and factors which affect their utilization in the human body are studied. Prerequisite: None.

**NUT 102 Nutrition for Young Children****3 2 0 4**

Study of basic nutrition, with emphasis on (1) methods of helping young children and their families learn nutritional concepts and (2) planning balanced diets for preschool children. Prerequisite: EDU 103.

**PHILOSOPHY****PHI 101 Introduction to Philosophy****3 0 0 3**

An introductory survey of the field, designed to make the student familiar with the main streams of philosophical thought from ancient to modern times. Students will be given opportunity to examine major concepts and apply them to their own value systems. Prerequisite: None.

**PHYSICS****PHY 001 Pre-Technical Physics****5 0 0 0**

A review of some of the basic concepts of physics. The topics included are systems of measurement, force and motion, and the properties of materials. Emphasis is placed on laboratory procedures and graphical analysis.

**PHY 101 Concepts in Physics****3 0 0 3**

Nonmathematical introduction to problems and concepts of physics. The major areas covered are mathematics, properties of mathematics, heat, sound, light, electricity and atomic theory. Emphasis will be on the association of physical principles of everyday phenomenon. Prerequisite: None.

**PHY 102 Electricity and Electronics****3 0 0 3**

A study of electricity and electronics including the concepts of electric and magnetic fields, electric potential, electric circuits and solid state devices. Emphasis is on medical applications of electricity and electronics. Quantitative problems involve the use of elementary algebra and trigonometry. Prerequisites: MAT 113, PHY 101.

**PHY 103 Modern Physics****2 0 0 2**

A study of the physics developed since 1900. Topics include wave-particle duality, quantum mechanics and nuclear reactions. Quantitative problems involve the use of elementary algebra and trigonometry. Prerequisites: MAT 113, PHY 101.

**PHY 104 Fluid Mechanics** 2 0 0 2

A study of the mechanics of fluids and the behavior of gases including the concepts of pressure, temperature, ideal gases, real gases and kinetic theory. Emphasis is on the application of theory to real systems and devices. Quantitative problems involve the use of elementary algebra. Prerequisites: MAT 113, PHY 101.

**PHY 111 Physics — Mechanics** 3 2 0 4

A fundamental course which develops the concepts of force motion work, energy and power. Also included are the topics of vector analysis, rotational motion and basic machines. Co-requisite: MAT 102.

**PHY 112 Physics — Materials and Heat** 3 2 0 4

A course which examines the properties of solids, liquids at rest and in motion, the gas laws and their application, heat and thermodynamics. Emphasis is on practical application through the use of realistic problems and laboratory exercises. Prerequisite: PHY 111.

**PHY 113 Physics — Electricity** 3 2 0 4

A study of the basic principles of electricity including electron theory, direct current circuits, alternating current circuits, electro-magnetic interactions and batteries. Emphasis is on practical application through the study of electrical power generating, transmission and conversion devices. Prerequisite: PHY 111.

**PHY 114 Physics — Light and Sound** 3 2 0 4

A study of wave motion and the generation, transmission and detection of sound and light. Topics include acoustics, illumination, optical devices and lasers. Practical application is emphasized through exercises an acoustical analysis of buildings and lighting system design and layout. Prerequisite: PHY 111.

**PHY 1101 Applied Science I** 3 2 0 4

An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system; properties of solids, liquids and gases. Practical application is stressed by use of realistic problems and laboratory exercises.

**PHY 1102 Applied Science II** 3 2 0 4

A study of the concepts of force, motion, work, energy, power and heat. Practical applications are realized through the study of friction and simple machines, and the relationship between thermal and mechanical energy.

**PHY 1103 Fundamentals of Electricity** 3 2 0 4

Elementary principles of electricity including the structure of matter and electron theory, basic electrical units, the relationship of current, voltage, resistance and power in series, parallel, and combination circuits.

**PHY 1104 Applied Science IV** 3 2 0 4

A study of wave motion and sound and light. Practical applications are stressed through the study of acoustics, musical rounds, color mixing, optical devices, illumination and the laser.

**PHY 1114 Science for Printers** 3 2 0 4

This course is designed to acquaint the student with some of the facts and principles concerning the properties and structure of matter. Major topics considered will be the general and specific properties of matter, atomic theory, physical and chemical changes, theories of light, photometry, mirrors and lenses, reflection, refraction, and color. Prerequisite: MAT 1150.

**PHY 1116 Solar Energy Conversion Systems****3 2 0 4**

This course will include an introduction to the operation and evaluation of various energy conversion systems. The primary emphasis will be on the operation of passive and active solar systems. The student will learn how to select the components for a complete solar space heating and/or domestic hot water heating system. Prerequisite: MAT 1102 or Equivalent.

**PLASTICS****PLA 101 Introduction to Plastics****2 0 3 3**

This course provides the student with an overview of the plastics industry. It includes the opportunities to learn the properties of plastics, the range of the user application, the jobs done by people in the fabrication of plastics, and the commercial production processes. Some laboratory experience is provided to give a basic understanding of how plastics are fabricated. Prerequisite: None.

**PLUMBING****PLU 1131 Plumbing I****8 0 15 13**

This course is an introduction to the plumbing trade. It includes plumbing systems, use and care of hand tools and selection of plumbing materials. The student will learn to solder copper pipe, cement plastic pipe, and pour lead joints. Plumbing layouts and the study of the North Carolina Plumbing code will also be introduced. Prerequisite: None.

**PLU 1132 Plumbing II****3 0 15 8**

This course is a continuation of PLU 1131. The student will practice "roughing-in" houses which includes measuring for and cutting holes in stud walls; figuring proper slope in pipe; and locating stacks, stack vents, toilets and drains. The student will also learn to determine size of and to install water pipe and waste pipe. The study of plumbing layouts and the North Carolina Plumbing Code will be continued. Prerequisite: PLU 1131.

**PLU 1133 Plumbing III****5 0 15 10**

This course is a continuation of PLU 1132. General plumbing practice will be continued. However, in this quarter, the student will assist in the selection and installation of all types of fixtures as well as the selection, installation and servicing of water heaters. The study of plumbing layouts and the North Carolina Plumbing Code will be continued. Prerequisite: PLU 1132.

**PLU 1134 Plumbing IV****3 0 21 10**

This course is a continuation of PLU 1133. The installation of plumbing will be continued. Additionally, the topics of plumbing repairs, trouble shooting and unclogging drains will be covered. The study of layouts and plumbing codes will be concluded. Prerequisite: PLU 1133.

## POLICE SCIENCE

### **PSC 101 Introduction to Law Enforcement** 5 0 0 5

A general course designed to familiarize the student with a philosophy and history of law enforcement, including its legal limitations in a democratic republic, a survey of the primary duties and responsibilities of the various law enforcement agencies, a delineation of the basic processes of justice, an evaluation of law enforcement's current position, and an orientation relative to law enforcement as a vocation. Prerequisite: None.

### **PSC 102 Criminology** 3 2 0 4

A general course designed to introduce the students to the social origins of criminal law, the administration of criminal justice, the causes of criminal behavior, and the prevention and control of crime, including individual rehabilitation and modification of the social environment. Prerequisite: None.

### **PSC 110 Police Role in Crime and Delinquency** 5 0 0 5

The study primarily concerned with scientific efforts to understand crime and to understand man in relation to crime phenomena. It deals with those definitions and formulations of crime and criminals upon which an adaptation system of criminology must be based. It examines the law as the basic framework within which social deviations of a peculiar character assume their functions as criminal acts and those broad principles upon which a science of criminology must rest. Prerequisite: None.

### **PSC 115 Criminal Law I** 5 0 0 5

Designed to present a basic concept of criminal law and to create appreciation of the rules under which one lives in our system of government. Prerequisite: None.

### **PSC 116 Criminal Law II** 5 0 0 5

A continuation of the study of the basic concepts of criminal law and why the law operates in its individual ways, jurisdiction, the criminal act, the mental element, criminal responsibility. The study proceeds to detailed examinations of the numerous specific criminal areas. Prerequisite: Criminal Law I.

### **PSC 120 Administration of Justice** 4 0 0 4

A review of court systems; procedures from incident to final disposition; the six primary functional areas for the administration of justice to include police, prosecutor, criminal courts, probation, institutions, and parole; and principles of federal, state, and civil laws as they apply to and affect law enforcement. Prerequisite: None.

### **PSC 121 Police Science: Seminar and Practicum** 3 0 10 4

A general course designed to provide the student with an opportunity to pursue, under supervision, work experience in the field of law enforcement, thus providing him motivation and a sense of realism in his field of study. The three hour seminar each week is devoted to review and discussion of field experiences. Prerequisite: Recommendation of the Department Chairman.

### **PSC 210 Criminalistics I** 3 2 0 4

This course introduces the student to fundamentals of investigation; crime scene search; recording, collection and preservation of evidence; sources of information, interview and interrogation; case preparation and court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny burglary, robbery, and homicide. Prerequisite: None.



**PSC 211 Criminalistics II****3 2 0 4**

Continuation of the study of criminal investigation including a general survey of the methods and techniques used in modern scientific investigations of crime, with emphasis upon the practical use of these methods by students. Laboratory techniques will be demonstrated and the student will participate in actual use of the scientific equipment. Prerequisite: PSC 210.

**PSC 220 Police Organization — Administration****5 0 0 5**

Introduction to principles of organization and administration, discussion of the service functions: e.g., personnel management, police management, training communications, records, property maintenance and miscellaneous services. Prerequisite: None.

**POLITICAL SCIENCE****POL 102 Government — National****5 0 0 5**

English and Colonial background, the Articles of Confederation and the framing of the federal Constitution. The nature of the federal union; states' rights, federal powers, political parties. The general organization and the functioning of the national government. Prerequisite: None.

**POL 103 Government — State and Local****5 0 0 5**

A study of state and local government, state-federal interrelationships, the functions and prerogatives of the branches. Problems of administration, legal procedures, law enforcement, police power, taxation, revenues and appropriations. Special attention will be given to North Carolina. Prerequisite: None.

**POL 212 American Government****3 0 0 3**

The student will survey the organization and functions of our national and state government, with special emphasis upon the study of the national Constitution. Prerequisite: None.

**PRACTICAL NURSE EDUCATION****PNE 1101 Fundamentals of Practical Nursing****7 0 0 7**

This course assists the student to assume the role of student practical nurse in the hospital setting. In the classroom the student learns the hand skills and the knowledge necessary for beginning care and relationships with patients. It is taught concurrently with PNE 1201. Prerequisite: None.

**PNE 1102 Nutrition and Diet Therapy****3 0 0 3**

Nutritional requirements and planning for all age groups is included in this course. It presents religious, cultural, social, and psychological factors that change dietary needs and is the study of therapeutic diets that affect disease conditions. Prerequisite: None.

**PNE 1104 Anatomy and Physiology****4 0 0 4**

Included in this course is the study of the general plan of the body and the nine systems. It is designed for understanding how the human body controls its functions, stands erect and moves, distributes food and oxygen, removes waste and provides for specie survival. Prerequisite: None.

**PNE 1105 Drug Administration****3 0 0 3**

This classroom instruction teaches safe techniques for oral drug administration. Systems for measuring drugs are included with practice in solving drug problems of measurement and conversion. Prerequisite: None.

**PNE 1106 Medical-Surgical Nursing I** 8 0 0 8

This is a classroom course and includes an overview of the needs of the adult medical and surgical patient, including body responses to disease and pain, assisting patients during diagnostic tests, pre-operative and post-operative care. It is taught concurrently with PNE 1202 and 1203. Prerequisites: PNE 1101, 1102, 1103, and 1105.

**PNE 1107 Maternity Nursing** 3 0 0 3

This classroom course presents the nursing care of the normal obstetrical patient and newborn child. Emphasis is placed on provision of better and safer nursing care for the expectant mother and her baby. Prerequisite: PNE 1101, 1102, 1103, and 1105.

**PNE 1108 Nursing of Children** 3 0 0 3

The normal growth and development pattern of the newborn child, school-age child and adolescent is studied in this course. Methods of meeting the needs of the hospitalized child are included. The student is prepared to care for hospitalized children with common disorders. Prerequisites: PNE 1101, 1102, 1103, and 1105.

**PNE 1110 Medical-Surgical Nursing II** 8 0 0 8

This is the study of the nursing care of common disorders of adults in the respiratory, musculoskeletal, gastrointestinal, reproductive and urinary systems. Nursing the patient with cancer is also included. It is taught concurrently with PNE 1204, and PNE 1205. Prerequisites: PNE 1101, PNE 1102, PNE 1103, PNE 1105, and PNE 1106.

**PNE 1111 Drug Therapy** 3 0 0 3

Factual material is given in this course on dosages and effects of drugs. There is experience with equipment and techniques used in preparing and giving injections. Insulin therapy, the storage, safety regulations, and preparation of narcotics are studied. The course is taught concurrently with PNE 1204 and PNE 1205. Prerequisites: PNE 1105, PNE 1202, and PNE 1203.

**PNE 1113 Medical-Surgical Nursing III** 7 0 0 7

This classroom course is a study of the nursing care for medical and surgical disorders of the eye, ear, and the skin. Nursing care of disorders in the circulatory, nervous, and endocrine systems is included. The course is taught concurrently with PNE 1206 and PNE 1207. Prerequisites: PNE 1101, PNE 1102, PNE 1103, PNE 1105, PNE 1110, and PNE 1111.

**PNE 1115 Personal and Vocational Relationships** 3 0 0 3

In this course the student is assisted to assume the role of a graduate practical nurse. The content includes advanced nursing ethics, laws that guide nursing practice and a review of the role of the practical nurse as student and graduate. Prerequisites: PNE 1105, PNE 1106, PNE 1110, PNE 1111, PNE 1113, PNE 1202, PNE 1203, PNE 1204, and PNE 1205.

**PNE 1201 Fundamentals Practicum** 0 0 6 2

Students have the opportunity to perfect hand skills necessary to the care of adult patients in hospitals. The course includes use of concepts of safety and individuality with patients. Communication, charting and medical terminology are an integral part of the study. The course is taught concurrently with PNE 1101. Prerequisite: None.

**PNE 1202 Medical Practicum (½ quarter)** 1 0 15 3

This course provides experience with adult patients in a hospital under supervision of a clinical teacher. Patients with common medical disorders are assigned for student care. Emphasis is on hand skills, solving nursing care problems and oral drug administration. The course is taught concurrently with PNE 1106. Prerequisites: PNE 1101, PNE 1102, PNE 1103, and PNE 1105.

**PNE 1203 Surgical Practicum (½ quarter)****1 0 15 3**

This is a hospital course of experience with adult patients under supervision of a clinical teacher. Patients with surgical disorders are assigned for nursing care. Emphasis is on hand skills, solving nursing care problems and oral drug administration. The course is taught concurrently with PNE 1106. Prerequisites: PNE 1101, PNE 1102, PNE 1103, PNE 1105, and PNE 1201.

**PNE 1204 Pediatric Practicum (½ quarter)****1 0 15 3**

The nursing care of children age one to twelve is experienced in this course in one of three hospital pediatric units. Children with a variety of medical and surgical disorders are assigned for student experience under supervision of a clinical teacher. This course is taught concurrently with PNE 1108. Prerequisites: PNE 1201, PNE 1202, and PNE 1203.

**PNE 1205 Advanced Medical-Surgical Practicum (½ quarter)****1 0 15 3**

This course includes the more difficult nursing care of surgical patients in one of two hospitals under supervision of a clinical teacher. The student will be assisted in making comprehensive nursing care plans and implementing the plans. Prerequisites: PNE 1201, PNE 1202, and PNE 1203.

**PNE 1206 Maternity Practicum (½ quarter)****1 0 15 3**

This is a hospital course of experience in all phases of maternity nursing. It includes nursing experience in the labor suite, the nursery, and the post-partal unit. It will be taught concurrently with PNE 1107. Prerequisites: PNE 1201, PNE 1202, and PNE 1203.

**PNE 1207 Rehabilitative Practicum (½ quarter)****1 0 15 3**

Rehabilitation nursing concepts are taught by assignments of patients with spinal cord injuries, debilitating arthritis and those learning to use various prosthetic devices. This experience is in a regional rehabilitative center and under the guidance of a clinical teacher. Prerequisites: PNE 1201, PNE 1202, and PNE 1203.

## PRINTING

**PRN 1101 Printer's English****3 0 0 3**

This is not a course for beginners in English, but is intended to provide a review of the essentials of English as they relate to the art of printing. The course deals with compounding words, modern punctuation, capitalization, syllabication, contractions, homonyms, errors in English words, sentence structure, and the marks in proofreading. Prerequisite: None.

**PRN 1131 Introduction to Printing****6 0 12 10**

This course is an introduction to the printing trade. Instruction will include student orientation, a historical outline of graphic arts, familiarization of terms, equipment and tools used in printing, and demonstrations of the equipment used in the Graphic Arts program. The student will be required to produce a printing project. Safe practices and safety rules are stressed. Prerequisite: None.

**PRN 1132 Offset Printing I****4 0 12 8**

This course is an introduction to Offset Printing. The Offset Press, Multilith 1250 and 1250W, ATF Chief and Davidson Dualith will be covered. The camera and stripping and platemaking will also be covered. The student will be required to operate each of the pieces of equipment. Prerequisites: PRN 1131, MAT 1150, PRN 1101, and BUS 1122.

**PRN 1133 Offset Printing II****6 0 15 11**

A continuation of PRN 1132, this course will place emphasis on use and maintenance of the larger press. Students will be introduced to the production of two, three, and four

color printing. This course is also an advanced study of the process camera and related darkroom equipment. Duotones will be emphasized. Prerequisites: PRN 1132, PRN 1134, PHY 1114.

**PRN 1134 Composition I** 3 0 6 5

The student will be instructed in the methods of copy preparation and the use of equipment in that phase of graphic arts. After the student has learned how to prepare copy, he will be required to produce one or more jobs. Prerequisites: PRN 1131, MAT 1150, PRN 1101, and BUS 1122.

**PRN 1135 Composition II** 3 0 3 4

This course is a continuation of Composition I. The major part of this course will be devoted to cold type composition by the machine method. Machines covered will include the typewriter, varityper, and headliner. Instruction will include photographs and color. Prerequisites: PRN 1132, PRN 1134, PHY 1114.

**PRN 1136 Estimating** 5 0 0 5

This course covers fundamentals of estimating costs of printing. Included in the instruction is the role of the estimator, basic cost areas, paper and layouts, preparatory composition, the press, finishing, estimate forms, estimating practice, and use of the Franklin Catalog. Prerequisites: PRN 1133, PRN 1135.

**PRN 1137 Printing Project** 0 0 21 7

The printing project will be determined after a conference between the instructor and student. The project will be in an area in which the student has had the fundamentals. Prerequisites: PRN 1133, PRN 1135.

## PSYCHOLOGY

**PSY 101 Psychology** 3 0 0 3

This course is geared to study the principles of human behavior with reference to thinking, learning, memory, perception, emotional life, individual differences in intelligence, aptitude, and personality, the scientific nature of psychological investigations and research findings related to daily life. Prerequisite: None.

**PSY 102 General Psychology** 5 0 0 5

A study of the various fields of psychology; the developmental process, motivation, emotion, frustration and adjustment, mental health, attention and perception, problems of group living. Attention is given to applications of these topics to problems of study, self-understanding and adjustment to the demands of society. Prerequisite: None.

**PSY 105 Human Growth and Development:  
Prenatal and Infant**

3 0 0 3

A detailed study of the developmental sequence of the prenatal and infant periods with emphasis on developmental influences and conditions necessary for optimal and development of individuals. Prerequisite: PSY 102.

**PSY 108 Abnormal Psychology** 5 0 0 5

This course offers an introduction to behavior pathology. The etiology, diagnosis, and prognosis of abnormal behavior. Neurosis, psychosis, character disorders, and psychosomatic reactions are among the topics included in the study. Prerequisite: PSY 102 or equivalent.



**PSY 110 Lifespan Psychology****3 0 0 3**

This course will deal with the human life span from conception through old age. It is intended to give the student a thorough grounding in the basic principles of developmental psychology. Emphasis will be placed on the theories of Erikson, Piaget, and Havighurst. Physiological and psychological critical periods in the development of the individual will be identified and their implications explored. Special attention will be given to the stress periods of childhood, adolescence, middle age, and old age. Prerequisite: None.

**PSY 112 Personality Development****3 0 0 3**

Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasizes grooming and method of personality development. Prerequisite: None.

**PSY 169 Social Psychology of Health and Illness****3 0 0 3**

In studying how culture defines one's responses to illness, both the psychological and sociological factors which play such an eminent part in one's development will be investigated. The cultural principles attributed to illness, symbols of illness, and situations associated with illness not only illustrate how illness affects family patterns and development, but also how such psychological and sociological principles affect patient-professional, family-patient, and family-professional relationships.

**PSY 205 Child Psychology****3 0 0 3**

The objective of this course is to consider the significant phases of motor, cognitive, emotional, and social development of the child as these are influenced by genetic, cultural, and individual elements from the prenatal period to adolescence. Prerequisite: PSY 101.

**PSY 206 Applied Psychology****3 0 0 3**

A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are: employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

**PSY 1101 Human Relations****3 0 0 3**

Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and his work situation in relation to society, group membership, and relationships within the work situation. Prerequisite: None.

## **RADIOLOGIC TECHNOLOGY**

**RDT 113 Departmental Orientation and Ethics and  
Elementary Radiation Protection****1 0 3 2**

This course is designed to introduce the student to the clinical setting. Emphasis is placed upon the functions of the x-ray department and ethics of the medical profession. The basic concepts of radiation protection of both the student and patient is introduced and practiced in the clinical setting. Prerequisite: None.

**RDT 114 Basic Essentials of Radiologic Technology 2 0 6 4**

This course consists of two lecture hours and six practicum hours each week. The student is introduced to the basic essentials of Radiologic Technology. Included is a preliminary overview of technical factors, positioning, and radiographic accessories. The student uses the practicum hours to fortify these basic essentials of Radiologic Technology. Prerequisite: RDT 113.

**RDT 116 Radiographic Terminology 1 0 0 1**

Designed to familiarize the student with various words, phrases and abbreviations used primarily in the radiology department. Prerequisite: None.

**RDT 125 Radiographic Darkroom 2 0 0 2**

Lectures, demonstrations, and experiments designed to instruct in the proper use of various photographic chemicals and techniques producing radiographs of the highest quality. Prerequisite: None.

**RDT 137 Radiographic Technique I 3 0 0 3**

This course introduces the student to the basic concepts of radiographic production. Prerequisite: None.

**RDT 138 Practicum I 0 6 24 11**

Practical aspects of basic radiography. Prerequisite: HEA 116.

**RDT 139 Positioning and Related Anatomy I 3 0 0 3**

Radiographic positioning of the upper extremity, shoulder girdle, foot, ankle, and lower leg. Special emphasis is placed upon the osseous radiographic anatomy of the particular structures. Prerequisite: BIO 108.

**RDT 161 Open Lab I 0 0 6 2**

Clinical experience in RDT 138 as conducted under night and weekend emergency conditions. Prerequisite: None.

**RDT 204 Nuclear Medicine 2 0 0 2**

Fundamentals of radioisotope technology. Prerequisite: None.

**RDT 216 Radiation Physics 3 0 0 3**

The basic principles behind matter, radioactivity, magnetism, electricity, as related to X-ray technology. Prerequisite: PHY 101.

**RDT 220 Operating Room Radiography 1 0 0 1**

This course gives the student an understanding of the various radiographic procedures which may be required during surgery. Each student spends an adequate amount of time in the operating room to observe a wide variety of surgical procedures. Prerequisite: RDT 237.

**RDT 233 Seminar I 1 0 0 1**

A comprehensive study of radiology and the student's role in the medical profession as an x-ray technologist. Prerequisite: None.

**RDT 234 Seminar II 1 0 0 1**

An opportunity for the student to do extra research and review in any aspect of technology in which he has special interest. Guest speakers will present to the students techniques, routines, and policies as carried forth at their respective hospitals. Prerequisite: RDT 233.

<b>RDT 237 Radiographic Technique II</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
An indepth study is presented in the selection of exposure factors, and the proper use of grids, cones, and other devices which may be employed to produce high quality radiographs. Prerequisite: RDT 137.				
<b>RDT 238 Practicum II</b>	<b>0</b>	<b>6</b>	<b>24</b>	<b>11</b>
Clinical practice with proficiency in the proper use of radiographic accessories and equipment. Prerequisite: RDT 138.				
<b>RDT 248 Practicum III</b>	<b>0</b>	<b>6</b>	<b>24</b>	<b>11</b>
Clinical instruction with emphasis on efficient operation of radiographic and flourographic equipment and procedures. Prerequisite: RDT 238.				
<b>RDT 249 Radiation Protection</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
Protective regulations, monitoring methods, and techniques for reducing exposure of patients and technologists. Prerequisite: None.				
<b>RDT 250 Special Procedures I</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>
An indepth study of radiographic procedures employing body section radiography, sterography, kymography, etc. Prerequisite: None.				
<b>RDT 252 Special Procedures II</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>
A study of all phases of anglography including cerebral, vascular, and cardioanglography. Prerequisite: RDT 250.				
<b>RDT 257 Departmental Administration</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
To acquaint the student with the function, organization, supervision, and financial arrangements in the Radiology Department. Prerequisite: None.				
<b>RDT 258 Practicum IV</b>	<b>0</b>	<b>6</b>	<b>24</b>	<b>11</b>
Emphasis is placed upon the efficient operation of special equipment and procedures as a part of continuing clinical experience. Prerequisite: RDT 248.				
<b>RDT 259 Positioning and Related Anatomy II</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
Radiographic positioning of the proximal lower extremity, hip, pelvis, vertebral column, and skull. Prerequisite: RDT 139.				
<b>RDT 260 Pediatric Radiography</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
A study of various positions, technical factors, and special problems associated with the radiography of infants and children. Prerequisite: RDT 137.				
<b>RDT 262 Open Lab II</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>
Clinical experience in RDT 238 as conducted under night and weekend emergency conditions. Prerequisite: RDT 161.				
<b>RDT 263 Open Lab III</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>
Clinical experience in RDT 248 as conducted under night and weekend emergency conditions. Prerequisite: RDT 262.				
<b>RDT 264 Open Lab IV</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>
Clinical experience in RDT 258 as conducted under night and weekend emergency conditions. Prerequisite: RDT 263.				
<b>RDT 265 Open Lab V</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>
Clinical experience in RDT 268 as conducted under night and weekend emergency conditions. Prerequisite: RDT 264.				

**RDT 266 Clinical Internship** 0 0 15 2

This course consists of continued study in all aspects of diagnostic radiology. The student performs radiographic examinations mainly under indirect supervision by instructors and staff technologists. The student is evaluated for excellence in examinations and procedures performed. Prerequisite: RDT 268.

**RDT 268 Practicum V** 0 6 24 11

An advanced clinical participation in radiographic theory, technique, and all categories of radiologic technology. Prerequisite: RDT 258.

**RDT 269 Positioning and Related Anatomy III** 3 0 0 3

This course deals with the radiography of body systems including the gastrointestinal tract, colon, biliary tract, and urinary tract, with special considerations of the related anatomy and physiology as applied in radiography. Prerequisite: RDT 259.

**RDT 275 TV and Monitor Systems** 1 0 0 1

A study of image intensification, videotape systems, and other recording devices used in the field of radiology. Through this course the student gains a basic understanding for this relatively new development in the advancement of radiographic science. Prerequisite: None.

**RDT 276 Equipment Maintenance** 1 0 0 1

To familiarize the student with the component circuits of an x-ray unit, to permit detection and proper correction of difficulties which interfere with or prevent the proper function of the equipment or accessories; as well as preventive maintenance to avoid expensive breakdown. Prerequisite: None.

**RDT 280 Dental Radiography** 1 0 0 1

To familiarize the student with the essential equipment, accessories, and techniques used in dental radiography. Prerequisite: RDT 237.

**RDT 281 Radiation Therapy** 2 0 0 2

Fundamentals of radiation therapy techniques and their use in the treatment of diseases. Prerequisite: None.

**RDT 283 Radiographic Pathology** 2 0 0 2

A course provided primarily for the x-ray student relating pathological conditions and their appearance on the radiography. Prerequisite: None.

**RDT 289 Film Critique I** 1 0 0 1

A review of films obtained by the student with consideration of basic positioning and technique. Prerequisite: None.

**RDT 290 Film Critique II** 2 0 0 2

Evaluation of diagnostic film quality as related to proper use of radiographic accessories. Prerequisite: RDT 289.

**RDT 291 Film Critique III** 2 0 0 2

Critical analysis of radiographs obtained by the student with emphasis upon special techniques and fluorographic procedures. Prerequisite: RDT 290.

**RDT 292 Film Critique IV** 2 0 0 2

The student presents films for critical evaluation of advanced radiographic procedures with emphasis upon visual anatomical structures and pathological conditions. Prerequisite: RDT 291.



## RESPIRATORY THERAPY

### **RTH 101 Respiratory Therapy Orientation** 0 2 0 1

A broad overview/exposure course in which the students observe various respiratory therapy equipment and procedures. The student will be exposed to hospital departments which work closely with respiratory therapy. Students who submit written verification of six months full-time practice of respiratory therapy under medical supervision will be exempt from this course. Prerequisite: None.

### **RTH 105 Respiratory Therapy Theories and Principles** 4 2 0 5

This course will provide the student with the theories and principles of the function, repair and maintenance of oxygen administration and aerosol administration equipment. The academic knowledge needed to understand the equipment and its management shall be learned and use of miscellaneous equipment will be taught. Prerequisite: RTH 139.

### **RTH 111 Practicum I** 1 0 15 6

The student will assist respiratory therapy personnel in the performance of various duties to include oxygen, humidity, and aerosol therapy, plus the setting up, maintaining, and cleaning of equipment. Prerequisite: RTH 139.

### **RTH 139 Cardiopulmonary Anatomy and Physiology** 2 0 0 2

This course consists of a concentrated study of the structure of the respiratory system and its physiological relation to the heart and blood vessels. The student shall gain a deeper knowledge and be given a more sophisticated approach to these systems. Prerequisite: BIO 108.

### **RTH 205 Obstructive and Restrictive Pulmonary Diseases** 2 2 0 3

This course shall cover the most common obstructive and restrictive diseases including etiology, sign/symptoms, pathophysiology, treatment, and prognosis. Prerequisites: RTH 105, RTH 111.

### **RTH 208 Emergency Medicine and Resuscitation** 2 2 0 3

American Red Cross standard and advanced first aid courses and cardiopulmonary resuscitation will be taught by class and lab methods. The role of the respiratory therapist in the emergency room, in community ambulance programs and in disaster control will also be presented. Prerequisite: RTH 228.

### **RTH 211 Pediatrics** 2 0 0 2

Normal growth and development in the newborn through the pediatric age groups will be covered in depth. Disease processes, primarily pulmonary, involving the pediatric age groups (such as cystic fibrosis and respiratory stress syndrome) will be covered in depth, as will attitudes of the therapist, the patient and the family toward illness in this age group. Prerequisite: RTH 215.

### **RTH 215 Ventilators** 2 2 0 3

A study of the various types of machines used to mechanically ventilate patients. Emphasis will be on operating ventilators, how specific changes in the patient affect his ventilatory pattern, and how specific operator-effected changes affect the ventilatory pattern. Prerequisite: None.

### **RTH 218 Practicum II** 1 0 15 6

This course is designed to aid the student in gaining supervised experience working with positive pressure in the clinical area. The student will work with all types of patients requiring IPPB and aerosol therapy. The student will set up, operate and maintain said equipment. Prerequisites: RTH 111, RTH 105.

**RTH 225 Library Research I****2 0 0 2**

This course is designed to introduce the student to the medical library and to begin to give the student experienced reference searching. The student will be expected, after researching the references provided, to prepare a paper with bibliography, to present the paper, and to answer any questions from the class. Prerequisites: ENG 100, ENG 101.

**RTH 228 Practicum III****0 0 18 6**

This course is designed to give the student an opportunity to perform and to demonstrate clinically the knowledge gained in parallel courses, i.e., Chest Physiotherapy, Pulmonary Functions, and Intensive Respiratory Care. Prerequisites: RTH 218, RTH 205, RTH 269.

**RTH 233 Chest Physiotherapy****1 2 0 2**

With class and laboratory experience, the student will learn methods of breathing exercises and segmental bronchial drainage both in pediatric and adult patients. At this time, an introduction of x-rays and bronchograms will also be provided. Prerequisite: RTH 269.

**RTH 235 Library Research II****2 0 0 2**

This course is designed to introduce the student to the medical library and to begin to give the student experience in reference searching. The student will be expected, after researching the references provided, to prepare a paper with bibliography, to present the paper, and to answer any questions from the class. Prerequisite: RTH 225.

**RTH 238 Practicum IV****0 0 18 6**

This course will provide for complete student involvement in critical care areas, chest physiotherapy, pulmonary functions and pediatrics. Special emphasis is on all parameters involved with continuous mechanical ventilation of the critically ill patient; i.e., intubations, extubations, trach care, arterial blood gases, and airway maintenance. Prerequisite: RTH 228.

**RTH 241 Respiratory Therapy Department Operations****2 0 0 2**

The student will work independently and as a team member in the development of a theoretical Respiratory Therapy Department. Budget planning, space requirements, equipment purchase decisions, charges, and personnel management will be discussed. Prerequisite: RTH 228.

**RTH 245 Library Research III****2 0 0 2**

This course is designed to introduce the student to the medical library and to begin to give the student experience in reference searching. The student will be expected, after researching the references provided, to prepare a paper with bibliography, to present the paper, and to answer any questions from the class. Prerequisite: RTH 235.

**RTH 248 Practicum V****0 6 30 13**

This course is designed to give the student an opportunity to perform and demonstrate knowledge gained in parallel courses. The majority of time will be spent administering therapy to the chronically ill and those patients which require long term ventilation and intensive respiratory care. Prerequisite: RTH 238.

**RTH 250 Intensive Respiratory Care****3 0 0 3**

An in-depth lecture series involving controlled ventilation of respiratory distress victims using both positive pressure and volume ventilators will be covered. Emphasis will be placed on flow sheets and monitoring techniques provided on a moment to moment and hourly basis. An introduction to arterial blood tap techniques will be provided. Knowledge of endotracheal and tracheotomy airway care for these patients will be stressed. Prerequisites: RTH 205, RTH 269.

**RTH 257 Respiratory and Hemodynamic Monitoring 3 0 0 3**

An in-depth series of lectures designed to give the Respiratory Therapy student a broad background and understanding of the various Respiratory and Hemodynamic monitoring modalities in use today. Arterial and venous pressure monitoring, Swan-Ganz catheterization, medical mass spectrometry, and equipment calibration techniques will be stressed. Prerequisites: PHY 102, RTH 269.

**RTH 263 Advanced Respiratory Therapy Techniques and Theories 2 2 0 3**

Through lecture techniques, the student will be presented information on heart-lung pumps, membrane oxygenators, hyperbaric oxygenation, and the other experimental developments. Prerequisites: RTH 215, RTH 250, RTH 228, RTH 268.

**RTH 268 Pulmonary Function 3 0 0 3**

The course will cover normal/abnormal pulmonary functions as well as acid-base physiology in health and disease processes. The student will learn how to perform pulmonary function studies, blood gas analysis, and expired and inspired gas analysis. He will learn the function and maintenance of pulmonary function and blood gas analysis equipment. Prerequisites: RTH 205, RTH 269.

**RTH 269 Cardiopulmonary Pathophysiology 4 0 0 4**

This course will cover the pathophysiology of disease entities that primarily involve the pulmonary and the cardiovascular systems. The etiology, pathophysiology and a brief description of the treatment of each disease process will be covered. Prerequisites: RTH 105, RTH 111.

**RTH 287 Respiratory Therapy Pharmacology 1 0 0 1**

This course, through lectures and laboratory experience, will provide the student with a working knowledge of pharmacological effects, side effects, contraindications, and use of respiratory therapy drugs and autonomic nervous system drugs. The student will receive supervised lab experience in sterile preparation and use of pharmacological measuring systems in preparing the drugs. Prerequisite: HEA 149.

**RTH 294 Advanced Respiratory Care 2 0 0 2**

Continuation of advanced Respiratory Care. Time of review and explanation of techniques, patient care, and case examples will be taught in great detail. Prerequisites: RTH 263, RTH 238.

## SCIENCE

**SCI 101 General Science 3 0 0 3**

A study of the basic concepts from biological, physical and natural sciences.

## SOCIOLOGY

**SOC 010 Study Skills 3 0 0 3**

The objective of this course is to help the student determine his achievement levels and learning style, plan his learning strategy and develop learning skills necessary for effective academic success.

Opportunity for self-assessment will be provided through standardized tests and individual profile interpretation. A variety of study techniques will be presented with special emphasis on using textbooks properly, taking and organizing notes, flash cards, effective examination skills and library techniques.

**SOC 100 Sociology I****0 4 0 2**

The recognition and development of human potential through emphasis on positive achievements, characteristics and attitudes. Beginning sessions will seek to establish for each student those things about himself that he can like and take pride in. Early in the course students will begin a process of establishing short-term goals. Other positive processes will include an analysis of strengths, identification of personal values, recognition of latent potential and establishment of long-range goals.

**SOC 101 Sociology II****0 4 0 2**

A continuation of the process begun in 100 with more in depth analysis of individual potential and more emphasis on long-range goal establishment. The student will be encouraged to be aware of his feelings and to utilize them to advantage. Honest self-appraisal, development of self-confidence and positive self-image are primary objectives.

**SOC 102 Principles of Sociology****5 0 0 5**

An introductory course in the principles of sociology. An attempt to provide an understanding of culture, collective behavior, community life, social institutions, and social change. Presents the scientific study of man's behavior in relation to other men, the general laws affecting the organization of such relationships and the effects of social life on human personality and behavior. Prerequisite: None.

**SOC 103 Sociology****3 0 0 3**

The student will examine the social environment in which personality matures, and an analysis of the major social institutions as well as the major social process. Attention is given to the scope, methods and concepts of sociology. Prerequisite: None.

**SOC 105 Families in the American Culture****3 0 0 3**

Study of the family in the American culture, changing patterns in family roles, the influence of socio-economic status on family relationships, factors associated with cultural deprivation, and the effects on children in such families. Prerequisite: SOC 104.

**SOC 209 Social Problems****3 0 0 3**

An analysis of modern social organization and disorganization as they relate to various social problems in contemporary American society. Prerequisite: SOC 102.

**SOC 210 Minorities in American Society****3 0 0 3**

A study of the historical and scientific questions of race: a study of sociocultural patterns in various inter-racial areas; and inquiry into the problems of conflict adjustment.

## WELDING

**WLD 1101 Basic Gas Welding****1 0 3 2**

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice given for surface welding; bronze welding; silver-soldering, and flame-cutting methods applicable to mechanical repair work. Prerequisite: None.

**WLD 1102 Applied Metal Preparation and Welding****1 0 3 2**

Welding practices on material applicable to the installation of body panels and repairs to doors, fenders, hoods, and deck lids. Student runs beads, does butt and fillet welding. Performs tests to detect strength and weaknesses of welded joints. Safety procedures emphasized throughout the course. Prerequisite: None.



**WLD 1111 Air Conditioning Welding** 1 0 3 2

Welding demonstrations by the instructor and practice by students. Safe and correct methods of assembling and operating the welding equipment. Practice given for surface welding; bronze welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work. Prerequisite: None.

**WLD 1113 Mechanical Testing and Inspection** 1 0 3 2

The standard methods for mechanical testing of welds. Types of test covered: bend, destructive, free-bend, guided-bend, nick-tear, notched-bend, tee-bend, nondestructive, V-notch, Charpy impact, etc. Prerequisite: None.

**WLD 1120 Oxyacetylene Welding and Cutting** 4 0 15 9

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead positions, brazing, hard and soft soldering. Safety procedures stresses throughout the program of instruction in the use of tools and equipment. Performance of mechanical testing and inspection to determine quality of the welds. Prerequisite: None.

**WLD 1121 Basic Arc Welding** 4 0 15 9

The operation of AC transformers and DC motor generator arc welding sets. Studies made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt, and fillet, welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures emphasized in the use of tools and equipment. Prerequisite: None.

**WLD 1123 Inert Gas Welding** 1 0 6 3

Introduction and practical operations in the use of inert-gas-shield arc welding. A study of the equipment, operation, safety and practice in the various positions. A thorough study of such topics as: principles of operation, shielding gases, filler rods, process variations and applications, manual and automatic welding. Prerequisite: None.

**WLD 1124 Advanced Arc Welding** 3 0 12 7

Extensive practice in the welding of different metals in all positions. The micro-wire welding process and a thorough study of such topics as principles of operation, nomenclature of machine, filler metals and shielding gases for the different type of metals. Special processes such as hard-facing laser beam and ultra-sonic welding. Introduction to the welder certification procedures and practices. Prerequisite: None.

**WLD 1126 Advanced Inert Gas Welding** 3 0 9 6

A continuation of WLD 1123. Theory and practice in inert gas welding. Both ferrous and non-ferrous welding applications covered. Inert spot welding, CO<sub>2</sub> welding, gas metal-arc, mig pipe welding, and automatic welding are taught. Special consideration given to shielding gases and certification procedures. Prerequisite: None.

**WLD 1127 Introduction to Pipe Welding** 1 0 6 3

Designed to provide practice in the welding of pressure piping in the horizontal, vertical and horizontal fixed positions using shielded metal arc welding processes according to the ASME code.

**WLD 1130 Applied Basic Arc and Gas Welding** 1 0 6 3

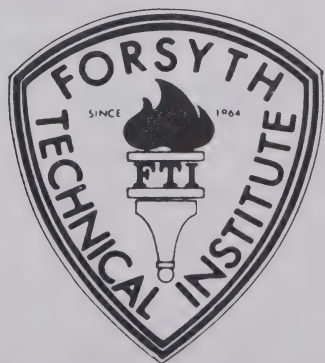
Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice given for surface welding; bronze welding, silver-soldering, and flame cutting methods applicable to mechanical repair work. Prerequisite: None.

**WLD 1131 Applied Inert Gas Welding****2 0 3 3**

Introduction and practical operation of the Inert Gas Welding processes. A study of the principles of operation of shielding gases, filler metals, M.I.G. guns, T.I.G. torches and T.I.G. spot guns will be covered. Special attention given to the joining of thin metals, both ferrous and non-ferrous. Safety procedures emphasized throughout the course. Prerequisite: None.



**PERSONNEL OF THE INSTITUTE**



## PERSONNEL OF THE INSTITUTE

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Chairman .....	Carroll G. Tompson
Vice Chairman .....	Dewitt E. Rhoades
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### APPOINTED BY THE GOVERNOR

Term Expires

June 30

Mrs. Velma G. Watts .....	1979
Dewitt E. Rhoades .....	1981
C. Edwin Allman, Jr. ....	1983
W. Douglas Foster .....	1985

### APPOINTED BY THE COUNTY COMMISSIONERS

R. Douglas Boyer .....	1979
Ned R. Smith .....	1981
Mrs. Selvey J. Boyer .....	1983
Z. Gray Jackson .....	1985

### APPOINTED BY THE WINSTON-SALEM/ FORSYTH COUNTY BOARD OF EDUCATION

Mrs. Floyd S. Burge, Jr. ....	1979
Dr. H. P. VanCleve .....	1981
Carroll G. Tompson .....	1983
Dr. Charlie B. Hauser .....	1985

### APPOINTED BY STUDENT GOVERNMENT ASSOCIATION

Current S.G.A. President



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T. Glen Fleeman, Jr. Executive Vice President, Instructional Affairs  
Charles R. King ..... Vice President For Student Services  
Charles P. Branch ..... Vice President For Business Affairs

**INSTRUCTION**

T. Glen Fleeman, Jr., Executive Vice President

**Curriculum Programs**

Marvin L. Allen ..... Dean, Business Technologies  
Walter Boggess ..... Dean, Engineering Technologies  
Grace B. Corey ..... Dean, General Studies Division  
James R. Winning ..... Dean, Health Technologies

**Library**

Audrey B. Zablocki ..... Director  
Thomas F. Gordon ..... Librarian  
Brenda G. Bodsford ..... Audio-Visual Technician  
Polly King ..... Library Assistant  
Jennifer Springs ..... Library Assistant

**Individualized Learning Center**

Ernest W. Tompkins ..... Director  
Anne M. Teachey ..... Coordinator  
Paul D. Apple ..... Coordinator

**Continuing Education**

L.T. Williams ..... Dean  
William Fournier ..... Associate Dean, Occupational Extension  
R. Shelton Jones ..... Associate Dean, Academic Extension  
Velma A. Jackson ..... Supervisor, Adult Basic Education

**STUDENT SERVICES**

Charles R. King ..... Vice President  
R. Paul Day ..... Director, Counseling  
W. Gary Ogburn ..... Director, Admissions and Records  
George McLendon ..... Counselor/Coordinator

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Ben Howell .....	Counselor
Colleen Richardson .....	Counselor
Borys Leoczko .....	Veteran Affairs Coordinator
Diane E. Lowe .....	Financial Aid Coordinator
Merrill J. Gordon .....	Registrar
Roger Sims .....	Admissions Counselor
Becki Weaver .....	Admissions Counselor
Lorraine Wood .....	Admissions Counselor

### **INSTITUTIONAL DEVELOPMENT/PUBLIC RELATIONS**

Jean R. Perkins .....	Coordinator
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### **PERSONNEL/EVENING PROGRAMS**

Larry V. Weaver .....	Director
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### **BUSINESS AFFAIRS**

Charles P. Branch .....	Vice President
Joyce W. Keith .....	Head Bookkeeper
Glen A. Hunter .....	Security Officer
Jerry D. Rogers .....	Manager of Auxiliary Services
Jon M. Gullette .....	Superintendent Buildings and Grounds

FACULTY AND STAFF

- Affeldt, Harley P. .... President  
B.S. and M.Ed. Virginia Polytechnic Institute; further graduate study at University of Virginia and North Carolina State University; Nova University graduate program
- Allen, Marvin L. .... Dean, Business Technologies Division  
B.A. Davidson College; M.B.A. East Carolina University; Nova University graduate program
- Allred, Sammy L. .... Business Administration  
B.S., M.A. Appalachian State University; further study North Carolina State University
- Apple, Paul D. .... Coordinator, Individualized Learning Center  
B.S. Bowling Green State University; M.A. Toledo State University
- Atkins, Harold L. .... Department Chairman, Horticulture  
B.S., M.S. North Carolina State University
- Baker, Rae S. .... Practical Nurse Education  
R.N. Charlotte Memorial Hospital School of Nursing; further study, Winston-Salem State University
- Barnes, Patrick D. .... Department Chairman, Electronic  
Data Processing  
B.S. Wake Forest University; M.Ed. University of North Carolina-Greensboro
- Beal, Drusilla J. .... Life Sciences  
B.S., M.A. Appalachian State University
- Beeson, John E. .... Department Chairman, Manufacturing  
Engineering Technology  
B.S.M.E. North Carolina State University; Professional Engineer State of North Carolina; further graduate study, A & T State University
- Black, Janice A. .... Business Administration  
A.A.S. Asheville-Buncombe Tech.; B.T. Appalachian State University; M.B.A. University of North Carolina-Greensboro
- Boger, W. L. .... Department Chairman, Welding  
B.S. Industrial Technology, A & T State University; graduate study North Carolina State University; Certified Aircraft and Missile Welding
- Boggess, Walter .... Dean, Engineering Technologies Division  
B.S.M.E. West Virginia University; MBA Stetson University, Post graduate study, Nova University; Registered Professional Engineer, North Carolina
- Boren, Jerre D. .... Associate Degree Nursing  
R.N. Duke University School of Nursing; B.S., Richmond Professional Institute; M.A., University of North Carolina-Chapel Hill
- Branch, Charles P. .... Vice-President, Business Affairs  
A.A. National Business College; B.A. Lynchburg College; graduate study, Appalachian State University; College Business Management Institute, University of Kentucky

- Brown, Edward I.** ..... Department Chairman, Plumbing  
Licensed Plumbing Contractor with seventeen years experience in residential and commercial contracting
- Brown, Joan** ..... Associate Degree Nursing  
R.N. Reynolds Memorial Hospital School of Nursing; B.S. Ed. Winston-Salem State University; M.Ed. North Carolina A & T State University
- Brown, Martha Kay** ..... Radiologic Technology  
North Carolina Baptist Hospital, Bowman Gray School of Radiologic Technology  
A.R.R.T.; A.A.S. Forsyth Technical Institute
- Burns, Herbert I.** Department Chairman, Architectural Technology  
A.A. Lee's Jr. College; B. of Architecture, University of Kentucky
- Byers, Samuel A.** ..... Physics  
B.S. Engineering-Physics, North Carolina A & T State University; M.S. Electrical Engineering, North Carolina A & T State University
- Carter, Richard D., Sr.** ..... Department Chairman, Automotive  
Body Repair  
Piedmont Bible College; Special Chevrolet training; qualified technician; General Motors Training Center
- Cates, Ray C.** ..... Horticulture  
B.S. North Carolina State University; M.Ed. University of North Carolina; further graduate study, University of North Carolina-Greensboro
- Chadwick, H. Leslie** ..... Mathematics  
B.S., M.A., East Carolina University; further graduate study George Peabody College, Duke University
- Chandler, Joseph W., III** ..... Business Administration  
B.S. University of South Carolina; CPA, State of North Carolina
- Chase, Betty D.** ..... Mathematics  
B.S. Appalachian State University; M.A. Wake Forest University; further graduate study, University of North Carolina-Greensboro
- Clanton, Rachel** ..... Radiologic Technology  
North Carolina Baptist Hospital, Bowman Gray School of Radiologic Technology; A.R.R.T.; A.A.S. Forsyth Technical Institute
- Conner, Elizabeth H.** ..... Life Sciences  
B.S. Duke University; M.A. University of Missouri
- Corey, Grace B.** ..... Dean, General Studies Division  
B.S. University of North Carolina-Greensboro; M.Ed. University of North Carolina-Greensboro
- Dalton, Jo Ann M.** ..... Associate Degree Nursing  
R.N. City Memorial Hospital School of Nursing; B.S.N. Winston-Salem State University
- Dalton, Patricia G.** ..... Department Chairman, Executive  
Secretarial Science  
B.S., M.Ed. University of North Carolina-Greensboro; additional study, North Carolina State University and Appalachian State University



- Darden, Jean L. .... Practical Nurse Education**  
R.N. Watts Hospital School of Nursing; further study, Wake Forest University,  
Winston-Salem State University, University of North Carolina-Greensboro
- Day, R. Paul .... Director, Counseling Center**  
B.B.A. University of Minnesota; M.Ed. University of North Carolina-Greensboro
- DeVane, Gloria H. .... Pre-Technical**  
B.S. North Carolina Central University
- Diaz, Jane .... Associate Degree Nursing**  
R.N., B.S.N. Medical College of Virginia
- Dosier, Ernestine .... Associate Degree Nursing**  
R.N., B.S.N., Winston-Salem State University
- Fain, Adeline .... Social Sciences**  
A.B. Washington University; M.A.Ed. University of North Carolina-Greensboro
- Fishel, Wilburn C. .... Automotive Body Repair**  
Twenty-seven years experience as body repairman; Certified State Fire Service  
Instructor; Dupont Refinishers Center
- Fleeman, T. Glen, Jr. .... Executive Vice President,  
Instructional Affairs**  
B.S. Concord College; M.Ed. University of North Carolina-Greensboro
- Forrest, William C. .... Humanities**  
B.A. University of North Carolina-Charlotte; M.A. Appalachian State University
- Foster, Lloyd L., Jr. .... Electronics Engineering Technology**  
B.S. Virginia Polytechnic Institute; M.Ed. University of North Carolina-Greensboro
- Fournier, William L. .... Associate Dean, Occupational Extension**  
B.A. Shepherd College; M.A. George Washington University; further study  
University of Pittsburgh, University of Maryland
- Frye, Ann W. .... Pre-Technical**  
B.A. Education, University of North Carolina-Greensboro; further study, North  
Carolina State University
- Gardner, John E. .... Department Chairman, Electronic Servicing**  
CET; ISCET; Coyne Electrical School; R.C.A. Institutes; Capitol Radio Engineering  
Institute
- Goforth, D. Shelton .... Department Chairman, Life Sciences**  
B.S., M.A. Appalachian State University
- Gordon, Merrill J. .... Registrar**  
A.A.S. Forsyth Technical Institute; B.A.S. Guilford College
- Gordon, Thomas F., Jr. .... Librarian**  
A.B., Duke University; M.S. University of North Carolina-Chapel Hill
- Grady, Stanley .... Electronic Data Processing**  
B.S. A & T State University; further studies at Electronic Computer Programmer  
Institute; further study University of North Carolina-Greensboro

- Gray, Retta W. .... Pre-Technical  
B.A.E. University of Florida; M.A. Appalachian State University; graduate study  
University of Florida, Florida State University; Western Carolina University,  
Jacksonville University, and Davidson College
- Grose, Odell, Jr. .... Carpentry  
Seventeen years experience in field of carpentry
- Gullette, Jon M. .... Superintendent, Buildings and Grounds  
B.A. University of South Florida
- Haire, Martha L. .... Practical Nurse Education  
R.N. North Carolina Baptist Hospital School of Nursing; B.S. Wake Forest University;  
further study North Carolina State University
- Hanes, Kenneth D. .... Department Chairman, Electrical Installation  
Electrician Apprenticeship Program, Forsyth Technical Institute, Licensed electrical  
contractor
- Harkness, Donald G. .... Department Chairman, Nuclear  
Medicine Technology  
A.A.S., Forsyth Technical Institute; B.S.N.M.T., Medical College of Georgia
- Harrison, Harold .... Department Chairman, Graphic Arts  
Mechanical Drafting, I.C.S., Mechanical Engineering, I.C.S.
- Hege, Raymond W. .... Department Chairman, Carpentry  
Forty-two years experience in the field of carpentry
- Hines, Harvey L. ... Department Chairman, Automotive Mechanics  
North Carolina State University; further study General Motors Training School, High  
Point College, Ford Motor Company Training School, Aamco Training Center
- Hinson, Tommy R. .... Department Chairman, Mathematics  
A.A. Wingate Junior College; B.S. Appalachian State University; M.Ed. University of  
North Carolina; further study Wake Forest University
- Holland, Margaret B. .... Department Chairman, Practical  
Nurse Education  
Mitchell College; R.N. North Carolina Baptist Hospital School of Nursing; B.S.N.,  
Winston-Salem State University
- Howell, Benjamin L. .... Counselor  
B.A. Wake Forest University; M.A. Appalachian State University
- Hunter, Glen A. .... Chief Security Officer  
A.A.S. Forsyth Technical Institute; Law Enforcement Certificate, Forsyth Technical  
Institute
- Iannuzzi, Judith .... Associate Degree Nursing  
R.N., B.S.N. University of North Carolina-Chapel Hill; M.Ed. Wake Forest University
- Jackson, Velma A. .... Director, Adult Basic Education  
B.S. Winston-Salem State University; M.A. Columbia University, Professional  
Diploma in Guidance, Columbia University; further study University of Wisconsin,  
North Carolina State University

- Jones, Lester M. . . . . Department Chairman, Air Conditioning,  
Refrigeration, Heating  
Graduate, Coyne Electrical School; Certified Refrigeration Service Engineers, Philco  
Ford Corporation Training Program; State Certificate North Carolina; further study  
Lake Michigan College
- Jones, R. Shelton . . . . . Associate Dean, Academic Extension  
B.S., M.S. Virginia Polytechnic Institute; Undergraduate work William & Mary  
College; advanced study University of North Carolina-Greensboro; further study  
Western Michigan University; Virginia Commonwealth University Extension
- Jones, Randall R. . . . . Department Chairman, Machinist  
Mechanical Engineering Certificate, International Correspondence School;  
Machinest Apprenticeship, Johnson City Foundry and Machine Works, Tennessee
- Kahl, George H. . . . . Department Chairman, Diesel Truck  
Maintenance and Repair  
A.A.S. Milwaukee Institute of Technology; B.S. Stout University; Undergraduate  
study Drake University; M.Ed. University of North Carolina-Greensboro;  
Journeyman Certificate, Diesel Mechanics
- Kandara, Nicholas G. . . . . Mechanical Drafting and  
Design Technology  
B.A. Guilford College
- Keith, Joyce W. . . . . Head Bookkeeper  
A.A.S. Forsyth Technical Institute
- King, Charles R. . . . . Vice President, Student Services  
A.A. University of North Carolina-Wilmington; A.B. East Carolina University; M.Ed.  
University of North Carolina-Greensboro
- King, Mary L. . . . . Practical Nurse Education  
R.N. Mayview Hospital School of Nursing; further study, Winston-Salem State  
University
- Kirby, Audrey S. . . . . Humanities  
B.S., M.A. Appalachian State University; graduate study North Carolina State  
University and University of North Carolina-Greensboro
- Lee, Linda M. . . . . Department Chairman, Humanities  
A.B. Wake Forest University; M.Ed. University of North Carolina-Greensboro
- Lehmann, Kenneth L. . . . . Department Chairman, Industrial  
Management  
B.B.A. Western Reserve University; M.S. Postsecondary Technical Education  
University of Akron; further graduate study University of Illinois, Oberlin College,  
Case Western Reserve University, American Management Association
- Leoczko, Borys . . . . . Coordinator, Veterans' Affairs  
B.A. Wake Forest University
- Lowe, Diane E. . . . . Coordinator, Financial Aid  
B.A. Catawba College; further graduate study at University of North Carolina-  
Greensboro
- Lore, Ann . . . . . Coordinator, Associate Degree Nursing  
B.A. Pfeiffer College; R.N. Robeson County Memorial School of Nursing; M.Ed.  
University of North Carolina-Greensboro; Nova University graduate program

- Lundgren, Loren W.** ..... **Business Administration**  
B.S. Northern Illinois University; further study Northern Illinois University and North Carolina State University; M.Ed. in progress University of North Carolina-Greensboro
- Mayerchak, Thomas J.** ..... **Department Chairman, Mechanical Drafting and Design Technology**  
Newark College of Engineering; LaSalle University
- Maynard, Judith H.** ..... **Associate Degree Nursing**  
R.N., B.S.N. University of North Carolina-Greensboro
- McLendon, George** ..... **Counselor/Coordinator, Adult Career Guidance Center**  
B.S. Winston-Salem State University; M.S. North Carolina Agricultural and Technical State University; further study Lenoir Rhyne College, Wake Forest University, and University of North Carolina-Greensboro
- McSwain, George L.** ..... **Department Chairman, Police Science**  
B.S., M.A. Appalachian State University; North Carolina S.B.I. Academy, Diploma, University of North Carolina-Asheville
- Metts, Alvin S.** ..... **Physics**  
B.S. North Carolina State University; graduate study Radford College; M.Ed. in progress University of North Carolina-Greensboro
- Moser, Mildred** ..... **Associate Degree Nursing**  
B.A. Guilford College; R.N. City Memorial Hospital School of Nursing
- Mutton, Albert F. Jr.** ..... **Respiratory Therapy Technology**  
B.S., East Tennessee State University; M.S. East Tennessee State University; further study Harvard University Medical School, University of Miami Medical School
- Neumann, Leslie L.** ..... **Social Studies**  
B.S. Wayne State University, M.A.Ed. Wake Forest University
- Norman, Emma Lee** ..... **CETA Instructor**  
B.S.B.E. Langston University; further study North Carolina Central University
- Ogburn, W. Gary** ..... **Director, Admissions and Records**  
B.S. Appalachian State University; M.Ed. University of North Carolina-Greensboro; advanced study at Wake Forest University
- O'Pharrow, Richard L.** ..... **Life Sciences**  
B.S. Johnson C. Smith University; M.A.T.M. University of Detroit; graduate study Fisk University and Vanderbilt University
- Owens, Florence** ..... **Associate Degree Nursing**  
R.N., B.S.N. Winston-Salem State University
- Parsons, Ralph D.** ..... **Department Chairman, Physics**  
B.S.E.E. North Carolina State University; M.Ed. University of North Carolina Greensboro; Registered Professional Engineer North Carolina; Nova University graduate program



- Perkins, Jean R.** ..... Coordinator, Institutional Development  
Radford College; further study Forsyth Technical Institute and Winston-Salem State University; special training, Long, Haymes and Carr, Advertising and Public Relations; Certificate in Multi-media Communications
- Peters, Ann R.** ..... Marketing and Retailing  
B.S.B.A., M.A.Ed. Western Carolina University
- Petree, Patricia** ..... Associate Degree Nursing  
R.N. City Memorial Hospital School of Nursing; B.S.N. Winston-Salem State University
- Poindexter, Gladys** ..... Practical Nurse Education  
R.N. Duke University School of Nursing; B.S.N. Winston-Salem State University
- Prillaman, Teresa** ..... Nuclear Medicine Technology  
A.A.S. Forsyth Technical Institute; B.S. Greensboro College
- Rajacich, Carolyn** ..... Associate Degree Nursing  
R.N. Rowan Memorial Hospital; B.S.N. Winston-Salem State University
- Raymer, Mary T.** ..... Pre-Technical  
B.S. Florida State University; M.S. Florida State University
- Reed Stewart W.** ..... Department Chairman, Electronics  
Engineering Technology  
B.S.Ed. University of Alabama; M.Ed. University of North Carolina-Greensboro
- Richardson, Colleen R.** ..... Counselor  
B.A. Appalachian State University; M.Ed. Wake Forest University
- Ripley, Delia** ..... Associate Degree Nursing  
R.N., B.S.N. University of North Carolina-Chapel Hill
- Ritchie, Clyde F. Jr.** ..... Department Chairman,  
Radiologic Technology  
North Carolina Memorial Hospital, University of North Carolina-Chapel Hill, A.R.R.T.; B.S., Alderson-Broadbudd College
- Robbins, Frederick** ..... Manufacturing Engineering Technology  
A.A.S. Forsyth Technical Institute
- Roberts, David L.** ..... Humanities  
B.S., M.A. Wake Forest University; M.A.T. Duke University
- Rogers, Jerry D.** ..... Manager, Auxiliary Services  
Twenty years experience in retail management; National Association of College Stores, Management Survey Certificate, Oberlin, Ohio
- Sample, Phyllis D.** ..... Associate Degree Nursing  
R.N., B.S.N. University of Bridgeport
- Sharpe, Franklin R.** ..... Diesel Truck Maintenance and Repair  
Mack Truck Training Center, Cummins Engine Training Center, Detroit Diesel Training Center, Ford Motor Training Center. Twenty-one years diesel experience
- Sherrill, Sharon L.** ..... Humanities  
A.B. English, Guilford College; M.A. Wake Forest University

- Shirk, Robert D. .... Pre-Technical**  
B.R.E. Piedmont Bible College; B.A. Salem College; M.S.H.E. University of North Carolina-Greensboro; further graduate study University of North Carolina-Greensboro
- Sims, Roger D. .... Admissions Counselor**  
B.A. Pfeiffer College; further study University of North Carolina-Greensboro
- Sineath, Alice B. .... Business Administration**  
B.S., B.S.B.A., M.A. Appalachian State University
- Sledge, Sandy D. .... Executive Secretarial Science**  
B.S., M.B.E. University of North Carolina-Greensboro
- Spillman, Sandy .... Department Chairman, CETA Office Skill Center**  
B.A., M.A. University of North Carolina-Greensboro
- Staley, Thomas R. .... Department Chairman,  
Business Administration**  
B.S. Appalachian State University; M.Ed. University of North Carolina; further study Guilford College, North Carolina State University
- \*Stephenson, Andrew H. ... Department Chairman, Marketing and  
Retailing**  
A.B., High Point College, M.Ed. University of North Carolina-Greensboro; advanced study George Washington University, Marine Corps Institute
- Stewart, Mary H. .... Practical Nurse Education**  
R.N., B.A. Lenoir Rhyne College; B.S. John Hopkins University
- Stoltz, Herbert E. .... Automotive Mechanics**  
Disc Brake School, Automotive Tune-up School, G.M. Training Center; twenty years experience in field of automotive mechanics
- Stowers, Marilyn H. .... Coordinator, Pre-Technical**  
B.S. Atlantic Christian; M.Ed. University of North Carolina-Greensboro; graduate study University of North Carolina-Chapel Hill, Wake Forest University; further study Queens College, Orton Reading Center, Salem College, Bowman Gray School of Medicine; North Carolina Certification in Learning Disabilities
- Taylor, Thomas A. .... Life Sciences**  
B.S., M.S. North Carolina State University; two years toward Ph.D. North Carolina State University; further graduate study University of North Carolina-Greensboro
- Teachey, Anne M. .... Coordinator, Individualized  
Learning Center**  
B.S. University of North Carolina-Greensboro; additional study Wake Forest University and North Carolina State University
- Tedder, Jake D. .... Business Administration**  
A.A. Pfeiffer College; B.S. University of North Carolina-Chapel Hill; M.Ed. University of North Carolina-Greensboro
- Tharpe, Betty H. .... Department Chairman,  
Building Trades Drafting**  
Western Electric Training Center; General Electric Design Course; Elon College

- Tompkins, Earnest Wayne** . . . Director, Individualized Learning Center  
A.A. Emmanuel College; B.A.B.S. Jacksonville State University; M.A. Appalachian State University; Post-graduate studies North Carolina State University; further study University of Alabama
- Tripp, Ellen L.** . . . . . **Humanities**  
A.B. Emerson College; M.A. Winthrop College, Ph.D. in progress, University of North Carolina-Greensboro
- Trotter, Donald L.** . . . . . **Electronics Engineering Technology**  
B.S.E.E. North Carolina State University; North Carolina Registered Professional Engineer
- Tuttle, Jeffrey L.** . . . . **Department Chairman, Banking and Finance**  
B.S., M.A. Appalachian State University
- VanHorn, JoAnn E.** . . . . . **Acting Department Chairman,  
Respiratory Therapy Technology**  
A.A.S. Forsyth Technical Institute
- Weaver, Becki** . . . . . **Admissions Counselor**  
A.A.S. Forsyth Technical Institute; B.S.A.S. Winston-Salem State University
- Weaver, Larry V.** . . . . **Director, Personnel and Evening Programs**  
A.A.S. Rowan Technical Institute; A.A.S. Forsyth Technical Institute; B.S.A.S. Winston-Salem State University; M.Ed. in progress, University of North Carolina-Greensboro
- Whisnant, Patricia N.** . . . . . **Department Chairman,  
Early Childhood Specialist**  
B.S. Wake Forest University; M.Ed. University of North Carolina-Greensboro
- White, Norman** . . . . . **Welding**  
Special training North Carolina State and Pratt Institute; Anaconda Welding Training Program; further study University of Tennessee-Oak Ridge
- Wilder, William B.** . . . . . **Automotive Mechanics**  
Chowan College; Forsyth Technical Institute; General Motors Training Center
- Williams, L. T.** . . . . . **Dean, Continuing Education Division**  
B.S. Western Carolina University; M.Ed. University of North Carolina-Greensboro; further study North Carolina State University
- Williams, Thelma M.** . . . . . **Executive Secretarial Science**  
B.A. Bennett College; M.B.E. University of North Carolina-Greensboro
- Winning, James R.** . . . . . **Dean, Health Technologies Division**  
B.S. Clemson University; M.A. East Tennessee State University; Nova University graduate program
- Wood, E. Lorraine** . . . . . **Admissions Counselor**  
B.S. North Carolina Central University; further study Forsyth Technical Institute
- Wright, A. Katherine** . . . . . **Associate Degree Nursing**  
R.N. West Suburban Hospital School of Nursing; B.S. Appalachian State University
- Zablocki, Audrey B.** . . . . . **Director, Library Services**  
B.S. Appalachian State University; M.Ed. University of North Carolina-Greensboro; advanced professional study, University of North Carolina-Chapel Hill; graduate study Wake Forest University

### AUXILLARY AND SUPPORT SERVICES

Edie Barber .....	Secretary, Counseling Center
Mary Baker .....	Secretary, Adult Basic Education
Mary Bassett .....	Secretary, Occupational Extension
Brenda Bodsford .....	Audio-Visual Technician
Dawn Boger .....	Clerk, Faculty/Staff Service Center
Mary Lou Bost .....	Evening Switchboard Operator
Karen Bowen .....	Secretary, Business Technologies Division
Sherry Brown .....	Secretary, Parking/Security
Mattie Brady .....	Secretary, Admission Office
Miriam Bumgarner .....	Secretary, Records Office
Lynette Cave .....	Secretary, Financial Affairs/Veterans Affairs
Carmencita Elijah ..	Recruiter Coordinator, Adult Basic Education
Danna Ferguson .....	Secretary, Adult Continuing Education
Ethel Flynt .....	Secretary, Individualized Learning Center
Betty Fox .....	Secretary, Adult Basic Education
Karen Fulcher .....	Payroll Bookkeeper
Jo Ann Galyean .....	Equipment Coordinator
Catherine Gilbert, .....	Secretary, Records Office
Gwen Goodwin, ....	Secretary, Engineering Technologies Division
Julia Grubbs .....	Secretary, Health Technologies Division
Mike Holt .....	Clerk, Faculty/Staff Service Center
Polly King .....	Library Assistant
Charles Lamb .....	Technician, Auto Mechanics
Pat Lewis .....	Secretary, Faculty/Staff Service Center
Esther Lockard .....	Receptionist
Rita Loper .....	Clerk, Bookstore
Pam Marsh .....	Secretary, Pre-Technical
Bennie McBride ....	Learning Coordinator, Adult Basic Education
Elsie Minor .....	Secretary, Records Office
Sandra Moser .....	Clerk, Faculty/Staff Service Center
Stephanie Myers .....	Secretary, Institutional Development
Jan Neas .....	Special Funds Bookkeeper
Martha Newsome .....	Secretary, Continuing Education
Carrie E. Parrott .....	Secretary, President
Robin Peddycord .....	Secretary, Academic Extension
Lucille Pegram ....	Secretary, Vice President for Student Services
Mary Powe .....	Learning Coordinator, Adult Basic Education
Eva Ranson .....	Head Clerk, Bookstore
Gaynell Reich .....	Secretary, Library Services
Nathan Revel ..	Employment Coordinator, Adult Basic Education
Crystal Reynolds ....	Evening Secretary, Student Services Division
Pat Seay .....	Secretary, Admissions and Records



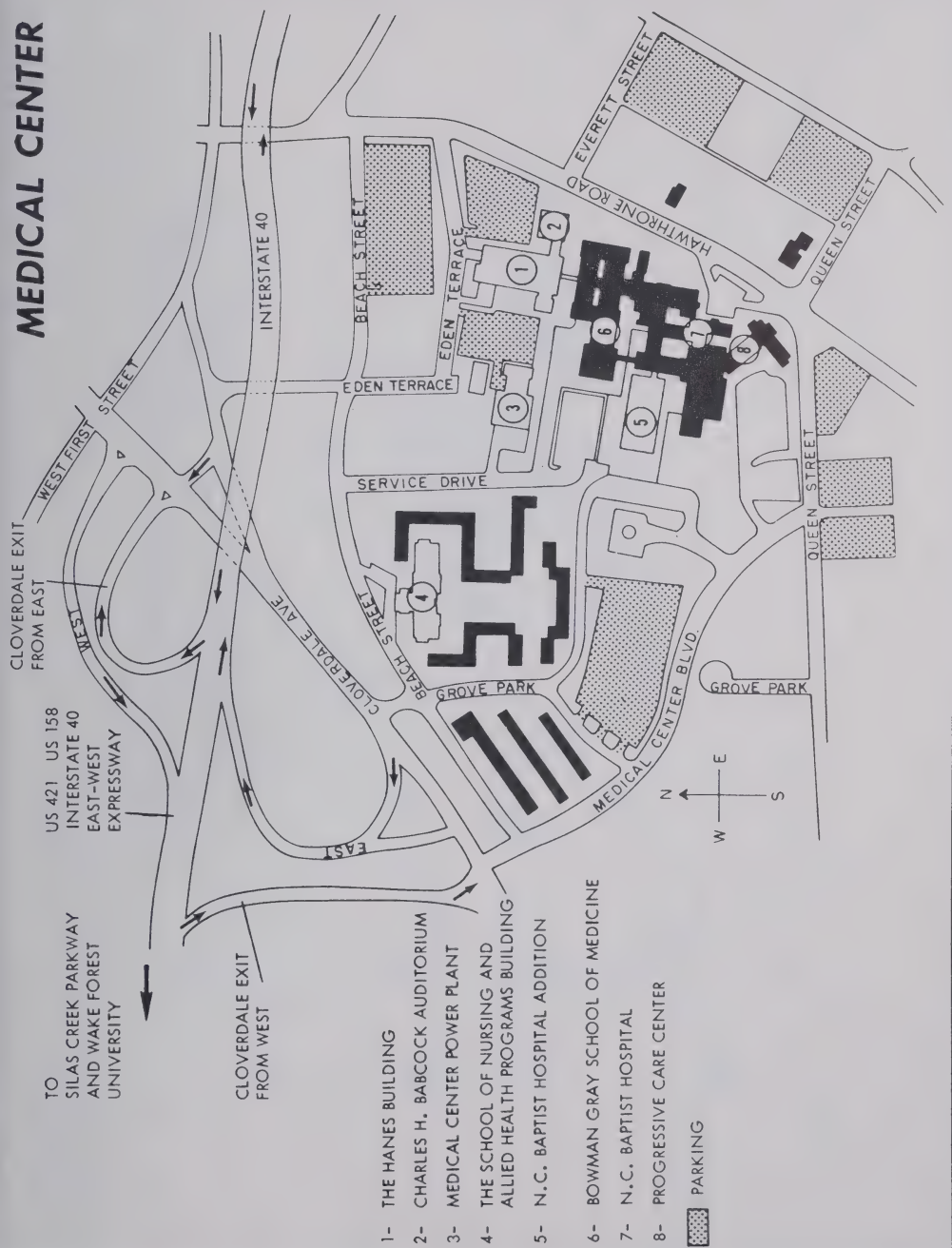
Jackie Sherrod ..... Cashier/Accounts Payable Bookkeeper  
Shirley Shelton ..... Secretary, Personnel/Evening Director  
Dianne Shue ..... Community Services Coordinator,  
Adult Basic Education  
Shirley L. Slater ..... Secretary, Executive Vice President  
Monty Smothers ..... Security Officer  
Jennifer Springs ..... Library Assistant  
Annette B. Squire ..... Secretary, Pre-Technical  
Cathy Swaim ..... Secretary, Vice President for Business Affairs  
Gloria Teal ..... Teaching Assistant, CETA Program  
Francisco Valadez ..... Printing Technician  
Beverly Vredenburg ..... Computer Operator/ Bookkeeper  
Cindy Weaver ..... Secretary, General Studies Division  
Barbara Wise ..... Scheduling Coordinator  
Lenora Yates ..... Secretary, Practical Nurse Education

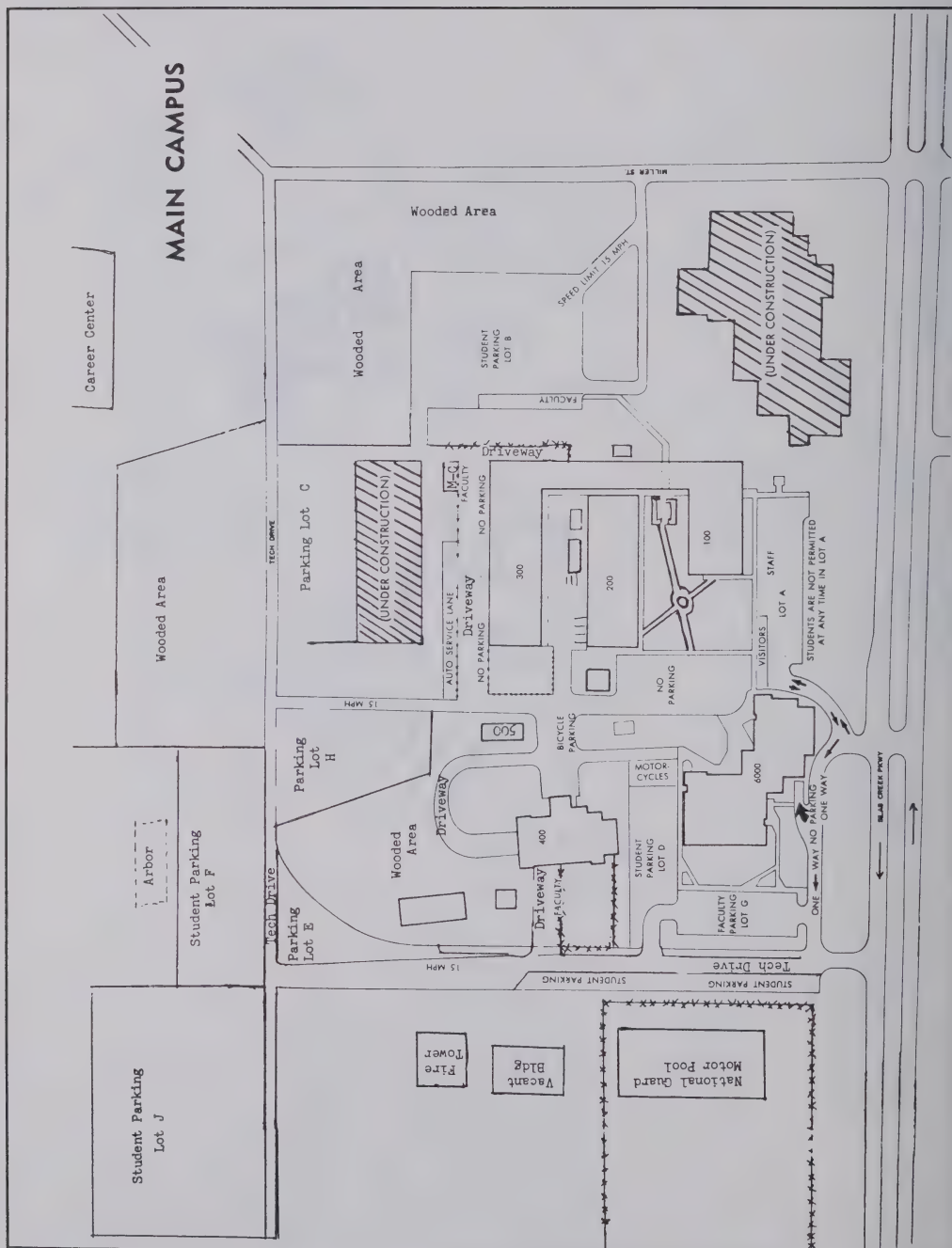
### MAINTENANCE AND CUSTODIAL SERVICES

Joe Booze ..... Maintenance Supervisor  
Maintenance Mechanics:  
Bruce Hege, David Motley, Jim Shouse, Calvin Stevenson  
Lillie Clark ..... Custodial Supervisor  
Housekeepers and Custodians:  
Donna Bishop, Hazel Broomfield, Ollie Clement, Castina Cremedy,  
Leo Ferguson, Lorraine Gaddy, Lucille Henry, Leonard Melton,  
Ulysses Nesmith, Beulah Scales, Fannie Upson



# MEDICAL CENTER







# **FORSYTH MEMORIAL HOSPITAL**

1. Paramedical Building
2. Student Parking
3. Forsyth Memorial Hospital
4. Whitaker Care
5. Faculty and Employee Parking
6. Doctor's Parking

